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# THE CINCINNATI MEDICAL NEWS.



EDITED BY

J. A. THACKER, A. M., M. D.

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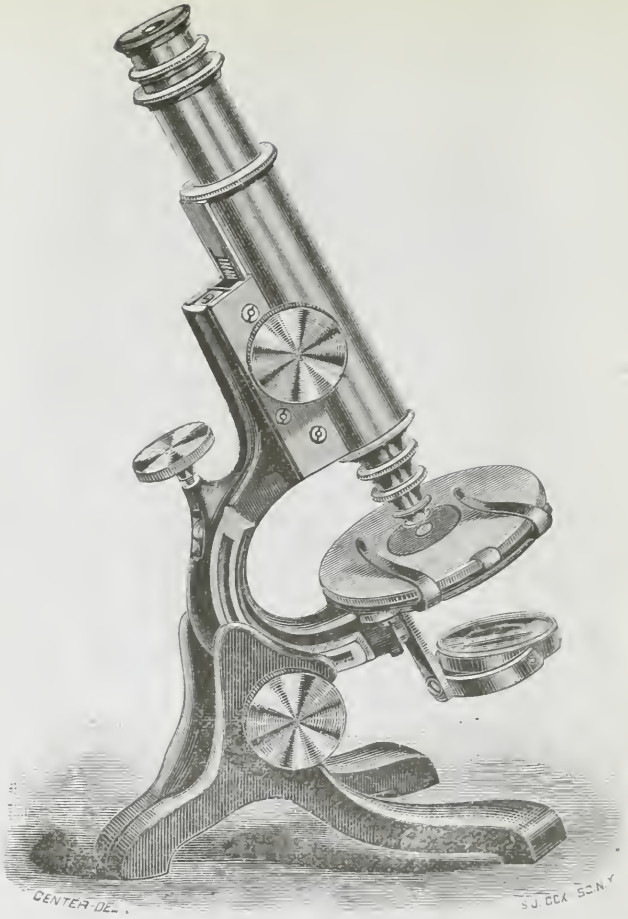


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THE

# CINCINNATI MEDICAL NEWS.

VOL. XIII. No. 154. Old Series. | OCTOBER, 1880. | VOL. IX. No. 10. New Series.

## ORIGINAL CONTRIBUTIONS.

### Electricity in the Treatment of Diseases of Women.

BY CHAS. A. L. REED, M. D., HAMILTON, O.

[Read before the Butler County (Ohio) Medical Society, September 2, 1880.]

ELECTRICITY is one of the most potent remedies in the treatment of diseases of women. In many instances it is not only more efficacious, but safer than other measures usually employed by the profession for the management of this class of maladies.

I know no better way of demonstrating the accuracy of these observations, than by passing at once to the recital of some cases in the treatment of which electricity has proven of great value in my hands.

#### PROLAPSUS UTERI.

Mrs. J. C. F., of Kansas, aged thirty-two, married twelve years, the mother of three children, presented herself to me, September, 1878, giving the following history of her case: Four months ago had had a miscarriage which was brought on by a fall. Previous to that time had always felt well, but ever since then her life had been a chapter of ill-health. Said she: "Doctor, I have such dragging-down pains in the small of my back. It seems to me that I will at times almost break in two. I have the whites just all the time. My bowels are constipated. My appetite is poor, and I have headache almost constantly." I found, on inquiry, that she experienced difficulty in starting the flow of water when she made efforts to urinate. This lot of symptoms, in whole or in part, at

all times indicates that condition which can not be more properly and accurately designated than by the homely phrase "falling of the womb." An examination revealed the womb so completely dropped that its mouth presented at the sphincter vagina. The organ was intensely inflamed and somewhat enlarged.

TREATMENT,

Consisting in the application, alternately, of primary (Galvanic) and secondary (Faradic) currents of electricity, after, of course, first reducing the procidentia, administering an alterative cathartic, and putting the patient to bed. The electrical "seances" were repeated once a day for the first week, each seance lasting from five to fifteen minutes. After the first week, the intervals of the treatment were lengthened, first, to every other day, and subsequently, to twice a week. At the end of the second week, the patient was permitted to go about the house, but as she persisted in running up and down steps, thus bringing on a partial recurrence of the trouble, she was, at the end of three days, again put to bed. The inflammatory feature of her malady had, however, by this time, so far subsided, that the primary (Galvanic) current was dispensed with, treatment being continued with the secondary (Faradic) current alone. At the expiration of another five days, she was permitted to go about her work. The womb, having regained its natural position, was successfully kept there by faridization of the organ, and ligaments, twice a week, for the succeeding four weeks, at the expiration of which time she was discharged. A year and a half later she had had no recurrence of the procidentia.

I desire to make this case a text for a few brief reflections on the relative merits of electricity and supporters in the treatment of this class of affections. The history of the case just related, which is but representative of a number of others that I might present, establishes the fact that electricity, unaided but by rest, is sufficient to cure recent prolapsus. The *rationale* of the treatment is made apparent by merely glancing, first, at the pathology of the condition; and, second, at the therapeutic action of the remedy. 1. The pathology of procidentia, briefly stated, consists essentially in (*a*) relaxation of the upper supports of the uterus, *viz.:* the suspensory ligaments;

(*b*) relaxation of the lower supports of the uterus, *viz.:* the vaginal walls; (*c*) local perversion of nutrition; (*d*) deficient nerve force. 2. The effect of the secondary (Faradic) current is, (*a*) to contract and "tone up" relaxed tissue. The influence of the primary (Galvanic) current is, (*b*) to correct disturbed nutrition, and (*c*) it is restorative and anodyne when applied to debilitated nerves. Thus Dr. Stephenson, of Edinburgh (*Half-Yearly Abstract*, July, 1873), says of the primary current in its direct application to weakened sacral nerves: "Its effect in alleviating pain affords immediate relief; and by its restorative influence, gradually removes the affection. * * * In some cases, * * great relief of suffering can be given more quickly and with better effect than by use of anodynes."

It can not be said, however, that the mechanical treatment of procidentia, *i. e.*, by the means of supports, so fully meets the requirements of these cases. Indeed, it is susceptible of demonstration that, in many instances, the unique contrivances called pessaries are positively irrational and damaging. A large number of these supports, more particularly the so-called intra-vaginal varieties, retard the improvement of cases by (*a*) failing to retain the organ *in situ naturale* after it has once been reduced. (*b*) They fail to restore the lower natural support of the uterus, by still further diminishing the longitudinal axis of the vagina; they being in shape "so diverse and grotesque and anomalous, as to be a surprise and wonder to one who has patiently considered the physical conditions of the normal vagina and uterus."* Those made of metals, and indeed of some other substances, often do damage by becoming irritating, thus (*c*) augmenting the pre-existing inflammatory trouble, as well as (*d*) aggravating the already paretic condition of the sacral nerves.

* Dr. E. Cutter, "Versions and Flexions," p. 53.

From this showing, it is obvious that of the two remedies, in at least those cases where adhesions have not formed, electricity is by far more preferable than pessaries.

### ELECTRICITY IN FLEXIONS AND OTHER DISPLACEMENTS.

I have successfully used electricity in the treatment of flexions. It is applicable in recent cases, and in old ones in which adhesions have not formed. I base my treatment of these cases on the obvious principle that a

flexion is simply a relaxation of one wall, with a corresponding contraction of the other wall of the uterus; just as an arm with paralysis of the extensors is bent by the unresisted contraction of the flexors. As the indication in the latter instance is to straighten the arm by restoring the vigor of the extensors, so, in the former, the indication is to straighten the uterus by re-establishing the contraction of the relaxed wall of the organ, and restoring the tone of the relaxed ligaments. This indication is met by applying the secondary (Faradic) current to the convex wall. This may be done in the case of anteflexion by adopting a method of Althaus, which consists in applying, through a speculum, a pea-tipped electrode to the external os, and carrying an olive-pointed director, connected with the other pole, into the rectum up to the fundus. In the case of retroflexion the same principle of treatment may be applied (indifferently, however) by treating the external os as in the previous case, and by applying a moistened sponge-covered electrode over the pelvis. Neither of these plans have, however, entirely suited me, the former being offensive to the patient's sense of delicacy, while the latter but seldom accomplishes its purpose; as the fundus in these cases is generally so far back that the anterior wall lies posterior to the line of the current, and in consequence remains unaffected.

To obviate both of these difficulties, I have devised

A NEW ELECTRODE,

Which consists of a cartridge-shaped disc fastened to a piece of fine rubber tubing, through which passes the connection of small and very flexible wire. The other part of the instrument consists of a heavy unflexible wire, insulated, and fastened to a transverse curved disc three-quarters of an inch long. The latter is introduced through a speculum, and the curved disc placed in the *cul de sac*, either in front or back of the os, respectively as the case may be one of retroflexion, or of anteflexion. The conical-pointed rubber tube, loaded in a fine uterine sound, previously bent to the requisite curvature, is then introduced into the uterus, and the metallic tip carried up to the fundus, and permitted to remain, the sound being withdrawn, and the extra-uterine part of the tube being deposited in the retaining clamps fastened to the heavy vertical wire. A mild and rapidly interrupted Faradic

current is then turned on, and continued for a length of time, varying from a minute to begin with to five minutes, after the first five or six applications a minute having been added successively to each seance. By this means I have succeeded in *reducing* flexions. As a process for this purpose, it must be commended as being far superior to the practice of introducing and burning the curved sound. The electrical method of reduction, just described, consists essentially in straightening the organ by causing contraction of the relaxed wall, a proceeding which, from the flexibility of the the intra-uterine electrode, involves no violence to the lining membrane of the womb. Reduction by the bent sound, however, particularly if often repeated, can not fail to become irritating, and I have seen it excite endometritis where none had previously existed. This instrument is a very desirable one in cases in which the os is open—a condition in which we nearly always find it in the displaced multiparous womb. In some cases of closed os, it is very useful as a supplement to a process of venting.

### CASE OF SUBINVOLUTION.

Mrs. C., of Illinois, aged thirty-eight, had had four children. Her last was born February, 1879. Her labor was "dry" and tedious, but in no other particular was it exceptional. Her convalescence was prompt and promising, yet she was not imprudent about getting up too soon. April 27, 1880, she presented herself to me complaining of the following *symptoms:* Pain in the back and groins, which she described as being of the bearing-down sort. Sharp pains at times across the lower part of the abdomen. A profuse and somewhat offensive discharge from the vagina. Great prostration from trifling exertion; considerable disturbance of the general health. Menstruation, at least a bloody discharge, occurring at irregular intervals since the fifth month after confinement. An examination revealed a womb with widely distended os, and measuring scant five inches from the cervex to the fundus. The lining membrane was extensively inflamed and the organ was anteflexed.

### TREATMENT

Consisted in first reducing the slight anteflexion by means of the apparatus just described, internal administration

of alterative alkalies, and then in the application of electricity as follows: I used at each seance first the primary (Galvanic) current from twenty-four cells, and then the secondary (Faradic) current for a space of but about three minutes. I used the Galvanic current by applying the positive pole to the back, and the negative within the organ, by means of Beard and Rockwell's intra-uterine electrode, with the following results:

April 31, womb measured 4¾ inches, longitudinal diameter. Discharge perceptibly diminished.

May 8, womb 4¼ inches, slight discharge.

" 14, " 4 " " "

" 20, " 3½ " only perceptible discharge.

" 25, " a trifle less than three inches; no discharge.

The pain, I omitted to mention, was materially reduced from the date of reduction of the dislocation; it was subsequently entirely relieved, temporarily, by each seance, and it entirely subsided May 20, and did not reappear after that date.

In the application of electricity for the treatment of a sub-involuted uterus, or one that has become hypertrophied from inflammatory action, I act on the principle indicated in this report; *i. e.*, of first effecting by electrolytic action partial solution of the hypertrophied tissue; and, second, promoting its absorption by applying the Faradic current, thereby inducing muscular contraction of the organ, and forcing, as it were, into the blood-vessels the element previously made ready for absorption. I have imagined I have effected this, when, as in the case just related, I (1) applied the primary current from twenty-five cells to the enlarged organ for five minutes; and, (2) immediately afterward applying the secondary current from a less number of cells for three minutes.

AMENORRHŒA, WITH ATROPHY OF THE UTERUS.

Mrs. C. L., twenty-six years old, had been married two and a half years. Eleven months after marriage, she had a miscarriage at four months utero-gestation. Since then, had not menstruated, excepting a slight show at the fourth and fifth month after the accident, but, instead, at the recurrence of each menstrual period, was the victim of nervous phenomena and intense headaches. She stated that she had never before her marriage been free in her

menstrual flow, frequently missing one or more months; and the discharge, when it appeared, was pale and scanty—in short, as she termed it, she "wasn't like most other women." Her present condition was that of a somewhat anæmic female, with general health consequently much impaired. An examination revealed a small nodular external os, presenting a bleached appearance. The smallest size uterine sound passed the internal os, but with difficulty, and reached the fundus at a little less than two inches. This anomalous condition of the multiparous womb, impressed me as being analagous to the one Sir Jas. Y. Simpson* attributed to "superinvolution" after delivery—not a questionable theory in this case, in which occurred practical suspension of ovarian function for the remarkable period of nineteen months.

TREATMENT.

She was treated with electricity and chalybeates. The electrical treatment consisted in the application three times a week of the primary (Galvanic) current from six cells, the positive pole being applied to the os, at first externally, and subsequently inserted within the organ by means of a very small pea-tipped electrode. The negative was placed alternately to the lumbar region of the spine and over the pelvis. The ovaries were also treated with this current, the positive pole being applied to them by means of Murray's ovarian electrode.

The result was most gratifying. At the end of the first month she experienced some uneasiness in the hypogastrium, attended with a slight discharge, the fluid being, however, only leucorrhœal in character. There was an appreciable diminution in her nervous disturbances. The uterus measured slightly over two inches in its longitudinal diameter. The treatment was continued at lengthened intervals until she was discharged at the end of the third month, at which time the organ measured nearly two and a half inches from cervix to fundus, and the catamenia were re-established to a degree normal to herself.

I may be pardoned for pointing out the fact that the treatment of amenorrhœa, with or without diminution, either acquired or congenital, of the size of the uterus, is

* Clinical Lecture on Amenorrhœa, *Medical Times and Gazette*, 1861.

accomplished to a better purpose by the use of the Galvanic current as described than by the instrument devised in 1849 by Simpson and subsequently improved, at different times, by Thomas, Noeggerath, and Murray, and known as "Simpson's Intra-uterine Galvanic Pessary"—a contrivance which, for electrical purposes, can not be recognized as being of much value. Although it is favorably spoken of by Lawson, Tait, Thomas, Hewitt, and Byford, yet, in connection with the treatment of amenorrhœa and atrophied os, it has not been demonstrated that its good effects do not depend upon mechanical irritation. The electricity generated by the elements of which the instrument is composed must be so imperceptible as to exert but little or no influence over the nutrition of the part to which it is applied. From my own observation I have reason to believe that any other intra-uterine pessary not galvanic, but possessed of equal irritating properties, will accomplish all the results claimed for Simpson's contrivance. But I am convinced that an irritating pessary of any kind in the treatment of these cases is not only inferior to the method which I have described in this paper, but their use, if persisted in, is fraught with danger.

Electricity is of use in the treatment of

### OTHER MENSTRUAL DISORDERS.

In some forms of painful menstruation galvanism has proved of value, and is recommended by Lawson, Tait and Hamilton. In cases of excessive discharge of blood from the uterus—both menorrhagia and metrorrhagia—uterine contractions may be induced and the flow thereby checked by the proper use of the secondary current.

### IN LABOR.

Sir Jas. T. Simpson, as early as 1849, demonstrated the utility of electricity in inducing labor pains. Dr. Alexander Manley, of New York, read a paper before the Neurological Society of that city, June, 1877, reporting several cases in which he had satisfactorily used faradization for the same purpose. In using electricity to stimulate contraction of the parturient womb, the secondary current should be selected, and not applied until the os has dilated or is in a dilatable state. One pole should then be applied over the abdomen at the fundus and the

other to the os over the sacrum, the indication being to induce contractions in the physiological direction—*i. e.*, from the fundus to the cervix. The application should not be made to opposite sides of the abdomen, as transverse contractions might thereby be brought on and an "hour-glass" condition thereby induced. A mild current should be used. I am not, however, favorably impressed with the oxytoic use of electricity. It can not be brought to bear upon the uterus without influencing the fetus, which, it seems to me, is too delicate in its nervous development to safely resist the shock of any current which may stimulate the womb to increased activity. I would not feel at ease in using this remedy unless in the case of an unmistakably dead child. I should then use a mild current, expecting as a result that: "1. The contractions would be more energetic than those produced by ergot. 2. Its action would be immediate. 3. The contractions would be regular and normal. 4. It could be used when swallowing is impaired, and the patient could not take ergot."*

As a remedy for

POST-PARTUM HEMORRHAGE

Faradization is hardly worthy of consideration, for the reason that when it is the most needed it is the least at hand. The hemorrhage following parturition is generally so violent that if you were to leave the patient to get your battery by the time you returned she would in all probability be a fit subject for the undertaker. There are cases, however, those which Bennett has spoken of as "*post partum* weeping" of the womb, which in many instances depend upon a relaxed condition of the organ, in which the secondary current would be of benefit.

Galvanism has been demonstrated to be of some service in the radical treatment of

OVARIAN TUMORS.

In treating these growths by the knife there is involved one of the most formidable and dangerous operations known to surgery. The operation by galvanism, however, removes the perils that are always associated with the use of the blade. The operation for the removal of ovarian tumors by electrolysis consists in inserting a num-

*Hamilton's "Clinical Electro-Therapeutics," p. 124.

ber (three or more) of needles, connected with the negative pole, into the base of the tumor, and applying the positive at a distance, or else inserting it also by means of insulated needles into a distant part of the growth and turning on a current from twenty-five to thirty cells for a half an hour. The seances should be repeated twice a week.

This brief *resume* of the methods of manipulating electricity, and of its effects upon the various cases referred to, can not fail to lead to the conclusion that it is a safe and potent remedy in the treatment of diseases of women. It is not the design, however, to carry out the idea that electricity is an agent either demanded or applicable at all times or in every case of this class. On the contrary, the pretension that its curative powers are universal is simply the shibboleth of the ignorant empiric. Neither is it desired to convey the impression that electricity is a remedy so unimportant in its effects or so simple in its application that its administration can be intrusted to unskilled hands. On the contrary, such a doctrine is most pernicious and emanates only from interested and unscrupulous venders of electrical instruments. Electricity is useful—most useful—in many cases. Its effects are decided as well as beneficent. Its proper use implies on the part of the one who employs it acquaintance with the principles of mechanics sufficient to enable him to understand the complicated apparatus he must of necessity use, a familiarity with the chemical and other effects of electricity in both health and disease, and, finally, he must enjoy a thorough comprehension of disease. Under such circumstances electricity can not escape recognition as one of the most important therapeutic agents in gynecic practice.

## Hypodermic Medication.

BY E. A. COBLEIGH, M. D., ATHENS, TENN.

(An Essay read before the *Hiwassee Medical Association.*)

THE society will surely overlook all imperfections of my present thesis, when reminded that I was, at our last meeting, appointed "on paper," by the President, after strenuous opposition from myself to his course; and when

I further state that the past month has been one of unusually heavy demands on my time, giving me almost no leisure for composition, or other extra work. This is my only apology for the fragmentary production now to be read.

It will be remembered that another member of this body presented here, about a year ago, a paper on the same subject chosen by me for to-day's essay. And I only follow Dr. Slack's thesis with a second of similar import, because I know that hypodermic medication is neglected by most of our members, to an extent that is to the disadvantage of both themselves and their patients. I feel confident that if this class of my professional colleagues could be induced to personally try this method of therapeusis, they would find the little syringe a valuable, if not an indispensable, addition to their medical armamentarium. And, while not claiming to be an authority on hypodermic medication, I hope that my present remarks, based on the experience of several years practical use of hypodermics, may at least lead to discussion here, and future consultation of more experienced and worthy writers on the subject, to the end that all may learn, and, I hope, practice, the subcutaneous method of administering remedies.

First, then, are there any special advantages to accrue either to physician or patient from hypodermicism? Personally, I am convinced there are—so thoroughly convinced, that of late years I resort thereto almost daily—and I only wish the whole profession would give a fair trial to it, believing that that alone is needful to fully satisfy and convert the most careless and skeptical among us. Now, while the advantages derivable from subcutaneous injection are not numerous, they are important, sometimes vitally so. The most conspicuous are as follows:

1. More rapid action of most remedies so used.
2. Nearly absolute ratio of effects obtained to size of dose introduced.
3. Avoidance of uncertainties of absorption.
4. Certainty of the prescribed remedy being taken in dose desired, or at time ordered.
5. Avoidance of liability to ejection by an irritable stomach.

6. Non-disturbance of the digestive organs when their organic diseases demand perfect rest for them.

7. Ability to administer remedies when mania, hysteria, trismus, coma, or other states, render deglutition difficult or impossible.

To these I might add another of minor and less general import, that some patients will readily undergo the slight pain of the needle rather than take some nauseous-tasting medicines by the mouth. Lastly, some writers would claim a financial saving in the use of costly drugs, such as atropia, by ensmalling of the dose necessary for its effect; but this is, as a rule, contrary to my own experience.

Now let us go a little more into the details of the foregoing specifications; and in this essay I shall base my statements on the use of morphia hypodermically, because it is both typical of all the rest, and more general in its application than any of the other drugs thus used. First, then, as to rapidity of action. Emergencies, acute suffering, etc., frequently demand prompt and permanent relief, to insure against bad, if not fatal results. Subcutaneous medication, in most cases, is by far the speediest method of systematic saturation with medicinal agents at our command. Morphine generally does not, even in full doses, act to any marked degree in less than from half an hour at the best, to one, two, and occasionally even three hours. I have seen its effect very apparent, in a few cases, in ten minutes after injection under the skin; more frequently twenty minutes is required for a fair degree of action; and moderate hypnotism, or narcosis, can easily be obtained in forty-five to sixty minutes at the latest. In cases of shock, venomous wounds, poisoning, syncope, drowning, etc., a moment sometimes turns the scale of life or death. Here *nothing* takes the place of hypodermicism, in using stimulants, antidotes, and other remedies indicated by the condition of the patient. But one other method of therapeusis can compare with it in rapidity, and that is applicable in only a few cases and with a minimum of medicinal agents. I refer to inhalation.

Again, I have mentioned the ratio of effects, variability of absorption, gastric rejection, etc., as important factors of weighing the merits of medication *per orem*, and otherwise. These may be here treated of collectively. Scarcely a case of disease falls under the doctor's care, in which

the functions of digestion, and absorption in the digestive tract, are not more or less disturbed. Nausea and emesis are exceedingly frequent occurrences, troubling us to no small degree in securing the retention of our drugs. Pouring medicines into such a stomach, is a good deal like thrashing a balky horse. It is an attempted substitution of brute force for mild persuasion, muscle *vs.* mind, and often fails both in the case of the stomach and the horse. The exceptional successes do not predicate a good foundation rule for future conduct. Of course I am dealing now with generalizations, not having time or inclination for details of argument; otherwise I would enter more minutely into the discussion of the relative merits of subcutaneous and rectal medication as applicable to this class of cases. But so incomparably superior is the former to the latter (except in rare instances), that I deem it only necessary to call attention to the fact, often doubtless noticed by all of us, that the rectum, from local disease, sympathetic irritability, or repeated irritation from frequent introduction of enema pipes, becomes unreliable, or wholly inadequate to our purposes in this direction, retaining but partially the injections thrown in, or rejecting them *in toto* and at once.

But, aside from simple nausea or vomiting, the gastro-intestinal tract is sometimes inflamed, congested, paralyzed, obstructed, or otherwise functionally incapable of subserving the purposes of digestion and appropriation. Here, unless we seek some mechanical effect from remedies given *per orem*, it were better not to burden the chylopoietec system with any increase of labor. Rest, total rest, is of as great, or greater importance, than almost any therapeutical measure. Yet other indications not infrequently coexist, demanding our solicitation and action. A few grains, of some easily absorbed and promptly acting remedy, carefully deposited in the subcutaneous tissues, meets the case with not a shadow of extra labor or irritation to the diseased region, and often with the happiest effect.

But even when no organic mischief warns us not to put medicine into the disturbed stomach, other minor considerations lead the practitioner to avoid it if possible. Torpor of gastric action, languid absorption, absent or vitiated peptic compounds, changes in the mucous elements, gastric repletion with food, excess of gases, and a score of

other troublesome retardations to the proper solution and absorption of certain drugs in the stomach or intestine, may face the physician, and render desirable any other channel for introduction of his remedies into the general circulation. Then we find in the hypodermic needle an ally not to be despised or contemptuously dispensed with. For all these conditions, if they do not prevent *per orem* medication, do at least retard and otherwise interfere therewith, rendering it uncertain of rapidity, of degree, and wholly unsatisfactory. But put your drug in the arm, if it be susceptible of such use—and nearly the whole materia medica has been so used—you get for one-eighth of a grain the effect of one-eighth, from one-fourth the certain and full effect of that dose, from one grain the action of just such quantity; no more, no less. If you know your drug and your patient, making, of course, every calculation for severity of morbid action, temperament, etc., you can estimate to a nicety just what the result will be, and how soon you will get it. You don't give ten grains and get the effect of two, the other eight passing off unabsorbed, or altered to inertness by chemical action in the stomach and bowels; but, unless capillary action is in utter stasis, the full effect *must* come, *does* come, *will* come every time.

The certainty that your desired dose has been taken, and will have its due action, is a minor affair in this case, for the physician may administer his own prescription by mouth also, before leaving the house, and thus be as certain that it is given as by the syringe; but we all know that our remedies, when left for use by the patient or nurse, often *are* slighted or thrown away; so this is a matter of some moment, after all, especially when it is conjoined with positiveness of non-ejection after our departure, as it is when left under the cutaneous surface. But the other point—the last of my preceding enumeration remaining to be canvassed—ability to medicate patients in coma, syncope, hysteria, trismus, mania, paralysis, convulsions, laryngeal diseases, etc., when swallowing is impossible, or voluntary resistance to our efforts for relief is encountered, sets forth as a clinching fact in my argument. And so axiomatic is the character of this last claim, that I regard any further consideration of it as unnecessary and the premises not likely to be disputed.

Thus far we have gazed at but one view of the picture!

All questions have two sides, and no debater can fairly pass over disadvantageous arguments without notice. So, in hypodermicism, there are inconveniences and dangers which must be frankly presented. The most serious and infrequent is puncture of a vein, and delivery of the whole potential broadside to the heart, lungs, or brain in a single moment. This would be a serious, if not a fatal catastrophe, should it happen with some drugs. But I have knowledge of such cases only through my journals, and certainly they must be quite rare. No intelligent physician, unless he purposely sought such rapid action of his remedy, would select a point of injection where such accident could occur. So, from the ease of preventability, this objection amounts to nothing—certainly not to any greater weight than the occasional fatality of ordinary doses of potent drugs, *per orem*, in patients of peculiar susceptibility, whose idiosyncrasy can not be foreknown. Yet these do not deter us from using opium, chloral, strychnia, arsenic, chloroform, digitalis, and kindred medicines in our every-day practice. Second, and most common, is the danger of abscess. In most cases, with proper caution, these are easily avoidable. I have made several pretty sore arms, but never had a case of abscess from the use of drugs ordinarily given in this way, such as morphia, ergot, atrophia, strychnia, etc. The simple soreness sometimes arises from acidity of menstruum used for injection, sometimes from the puncture of a nerve, oftener from the injection of a bubble of air. The first and last causes can be readily prevented; the second rarely occurs. Abscesses usually result from irritating injections, as aq. ammon., quinine, carbolic acid (now extensively used in its purity for skin diseases by the hypodermic method), chloral, ether, chloroform, badly dissolved agents, or from air carelessly thrown in. I have seen abscesses from all these causes, but air generally only produces an intense, but brief, smarting. The danger of too intense action from a remedy thus given is a bugbear, as are also those of punctures of vessels, nerves, tendons, etc. It is obvious that a man ought to have medical common sense to use the hypodermic syringe at all. If he has that, he will never unintentionally run the needle deep enough for harm of that kind; and the risk of poisoning by overdose is no greater—not so great, indeed, when we consider all the changing factors in the stom-

achic laboratory—than is the use of remedies by the common channel of introduction.

Risks are our mutual and necessary heritage, as physicians. Half the doses we give involve more or less of uncertainty and peril. In assuming such responsibility, we are justified by previous experience, or present emergency, one or both. Conscience clears us, the world indorses. Different cases entail varying degrees of justifiable risk. So it is with hypodermic medication. In a thousand cases we inject harmless drugs just under the skin, with almost no risk at all. In the next case, perhaps, we purposely risk all on a deep puncture, or an irritant substance, to save a fast waning life. I have passed my needle its full length into the thigh, perpendicular to the surface, and thrown in twenty *m.* of chloroform in a case of obstinate and intense sciatica. I would not hesitate to repeat the measure if needful. I have premeditatedly frescoed one patient with abscesses from the free and repeated injection of ammonia in a case of reputed snake bite. The man recovered. It was a serious alternative, but life was worth the abscesses. I would do it in similar cases again. And for hypodermicism I only claim, and believe I can substantiate the proposition, that injections are no more inconvenient, or hazardous, than other methods of treatment of more general use; and the physician who neglects it through fear, or indolence, fails in his duty both to himself and his patrons. The instruments are cheapened to the extent of being within financial reach of all, and have been vastly improved in the last few years.

A word now as to the practical use of the hypodermic syringe, and I am done. For him who seldom uses it, solutions for carrying about are troublesome and useless, as they soon sour. Many fluid extracts can be used without preparation or trouble, among them ergot, aloes, ipecac, and others. Alkaloids, and easily soluble drugs, are best weighed and put up in powders, to be carried thus, ready for immediate use. Morphia I carry in $\frac{1}{6}$, $\frac{1}{4}$ and $\frac{1}{8}$ grain powders, so marked. Atrophia I carry in $\frac{1}{120}$ and $\frac{1}{80}$ grain doses, by weight. I keep my syringe piston well saturated with sweet oil by occasional soaking, thus preventing shrinking thereof, and the necessity of a long soaking in water when wanted. When I wish to inject morphine, I take an empty cup, and one full of clear,

tepid water, suck half or a full syringe out of the latter, drop my powder into the former, and eject contents of syringe forcibly on to it. By thus drawing it into, and forcibly ejecting it from the instrument a few times, the powder is thoroughly dissolved. I now suck it into syringe again, put on the needle or tip, turn it upward, force out all of the air by pushing up the piston until water flows from the needle, and am ready for work. Between my left thumb and finger I catch up a good fold of skin, (preferably in neighborhood of deltoid for general purposes), draw it tightly toward me, holding the needle like a scalpel, and quickly pass it horizontally into said fold, up to its hilt or heel. Now I draw it back a little, and slowly force out the desired amount of its contents. If the details are closely attended to, and the injection slowly made, no disagreeable sensation results except a slight and momentary burning at the side of puncture. By squeezing the skin between the fingers a moment, before puncturing it, sensation is so nearly obliterated that the needle is scarcely felt at all, and most patients after being once initiated into this method of treatment, prefer it, when in pain, to the slower process of introduction by the stomach. In using morphine, except in easily impressible subjects, I adopt the same dose as for administration *per orem*, and have no greater effect therefrom. It does not nauseate so readily when thus given, and is a trifle less constipating, but to avoid these effects when it is an especial desideratum, I usually combine atropine with it when injected.

Thanking you for the time allowed in reading my rather lengthy and disjointed essay, I leave the subject with you for discussion or future thought.

## Selections.

### Clinic of Austin Flint, M. D.,

Professor of Principles and Practice of Medicine in Bellevue Hospital Medical College, New York.

#### INSOLATION.

I WISH to call your attention first, to-day, gentlemen, to this patient. It is a case of insolation, or sunstroke.

The oppressive and unprecedented hot weather at this season has produced quite a number of cases of sunstroke. Only two cases, however, have been received into this hospital. One case terminated fatally a few minutes after admission. This is the other case, which was transferred to the third medical division. This case, I am happy to see, is apparently doing exceedingly well. It is a rather typical case, I think, after looking at the history, of insolation proper, or thermal fever, if you choose to call it so. It is an essential fever, evidently. Let me say that cases of so-called insolation are of a somewhat diversified character, and, practically, it is very important to make a discrimination among the cases. The very typical cases are cases of sudden coma, accompanied with high fever, and, frequently, a very high temperature. This case, as we shall see, had quite a high temperature. These are the two more important criteria of thermal fever, or a true case of insolation; but during the prevalence of heat patients frequently become exhausted, and they lose consciousness suddenly from pure exhaustion, and they are brought into the hospital. In these cases we do not find the high temperature; we do not find the forcible pulse or the strong action of the heart that we do in the cases of thermal fever; and it is very important not to treat these cases in the same way as we would treat cases of a different character. Perhaps the majority of cases come within these two conditions. Then there are cases (but I do not know that these should be separated from the cases of thermal fever) in which we have developed very quickly all the symptoms of acute cerebral meningitis; and these are to be treated as cases of acute cerebral meningitis. And we have other cases where, in addition to a high temperature and a strong pulse, we have the symptoms which denote active cerebral congestion; and these cases, I think, should be discriminated, for I have been led to the conclusion that in these cases prompt venesection is indicated, and we may be able to save life by resorting to it. I think I have seen at least one life saved by a prompt resort to venesection. With reference to the use of that treatment, we should certainly make a discrimination between cases where the symptoms are those of exhaustion and cases where the symptoms are those of cerebral congestion.

Well, now, the history of this case has been taken very

carefully, and will be instructive, I think, as giving you a good picture of a case of thermal fever or insolation, febrile phenomena being prominent. The patient's name is August O., a German, forty-five years of age, a tailor by occupation.

In speaking of cases of insolation which may occur during this hot weather, I meant to have referred to the importance of discriminatng between cases of insolation and cases of alcoholic intoxication. A considerable number of the cases brought into the hospital during the time cases of insolation occur are cases of drunkenness; of course we are to make that discrimination.

This patient was picked up in avenue A, in a comatose condition, and when admitted, at 8:50 P. M. yesterday, he was still comatose; the breathing stertorous and labored, the skin dry and hot, the eyelids closed, the pupils contracted; the temperature in the axilla was 106°. I have known it to be 110 in a case which recovered under treatment. The pulse 160, full, incompressible; involuntary evacuation of the bowels; he vomited once. The lungs were examined, but presented nothing abnormal.

This was the group of symptoms when the patient was admitted. The treatment consisted in putting at once the ice-bag upon the head. Then he was put upon what is known as Kibby's cot, which is a cot so constructed as to allow of a very convenient application of cold water, or warm water, as the case may be, to the whole body, and he was bathed with cold water. He had dry cups applied to the chest as a prophylactic measure. We know that one of the conditions incidental to insolation is pulmonary congestion. This was done, then, immediately after his admission into the hospital, and he was admitted at 8 o'clock and 50 minutes last evening. It is important to take note of the time here, so as to judge of the efficacy of the treatment. At 9:30 the temperature in the axilla was reduced to 102°—from 106° to 102°—by treatment with water. He had then a cold water enema. At 10 o'clock, half an hour later, the patient was evidently improved; he opened his eyes; the pupils were more dilated; he starts, gasps and shivers when water is poured upon him. The breathing now is less labored and more natural. This shivering and starting shows an increase of reflex excitability. He now had a hypodermic of two drachms of whisky, with five drops of digitalis. That was at 10 o'clock.

At 10:30, the cold water being still applied, the temperature in the axilla (which is not a good guide—a point to be borne in mind, and this affords an illustration of it) gave only 101°; in the rectum, however, it gave 103°, making a difference of two degrees. He had twitching of the eyelids and mouth, and his lower jaw was noticed to move. At 1 o'clock A. M. the temperature was 101.5°. The patient is lying perfectly quiet and the breathing is easy. Six ounces of urine were withdrawn from the bladder by the catheter. It was amber in color, clear, acid, specific gravity 1.014, and contained no albumen. The latter fact is of importance, so as to exclude uræmia in these cases. If we accept cases of coma as those of insolation without due attention, there being a variety of causes for coma, it is quite possible to make mistakes. At 3:30 in the morning the temperature was 101.5°, and he had a more reflex excitability. He started, and had contraction when the skin was touched. He answered questions. The arms were flexed, and it required some force to straighten them. He had contraction of the flexor muscles of the arm. At 10 o'clock the temperature was 101.5°; pulse 108; it had a full character. The arms are still flexed. He answers questions in monosyllables; pupils do not respond readily to light; the breathing is normal, and he shows reflex irritation.

Well, that gives you a very good history of a good typical case of insolation. Here is the patient. You can see that he looks a little dull, but still he has his intellect; his eyes look well; there is a little capillary congestion, as you see; the breathing is good; he puts out his tongue readily when asked; that is one evidence of intelligence.

And now the chief indication of treatment in this case is to let the patient remain perfectly quiet; and judging from his condition at the present time, we may look forward to his improving every hour almost, and very likely to-morrow he will seem quite well, with the exception of a certain amount of debility. .

### ANEURISM OF THE ARCH OF THE AORTA.

I shall present next, gentlemen, a case of aneurism; aortic aneurism. George R., fifty-seven years of age, a native of the United States, an upholsterer by occupation, was admitted on the 10th of May. His family history is unimportant. He says he had good health up to two

years ago. He has never had, so far as he is aware, any injury from a strain or violent muscular exertion, but *he has had syphilis*, and *syphilis stands in a causative relation to aneurism* in a certain proportion of cases; that is to say, a sufficiently large number of cases of aneurism in which syphilis had existed to warrant the conclusion that there is a pathological connection, and that is to be presumed in this case.

Now, gentlemen, let me say beforehand, I have not read this history; it will be fresh to me as well as to you; but we are to keep this point in view; there are the symptoms which point to eccentric pressure of an aneurismal tumor. We are often led to suspect aneurism by symptoms which lead us to think there is mechanical pressure upon certain parts, and these symptoms constitute in part the evidence upon which we base the diagnosis.

Now, two years ago, he states here, his voice became weak. Well, that is all that is stated here about that, but the mode in which it is expressed, "his voice became weak," renders it probable that it was not an affection of the voice from a laryngeal inflammation, but from some interference with those muscles which are involved in phonation, and we know that pressure upon the recurrent laryngeal nerve occurs in certain cases of aneurism and produces aphonia, or more or less dysphonia, or difficulty.

He had boring pains in the chest and back. These symptoms should always excite our suspicion; a localized pain in the situation of the aorta anteriorly or in the back. Where a patient complains of persistent pain, localized in the same spot, persisting for a considerable length of time, aneurism should always come into our minds.

He had difficulty of respiration, which may proceed from various causes; caused from pressure, perhaps, upon the trachea, or pressure on one of the primary bronchi; or from pressure on the recurrent laryngeal nerve, involving spasm of the glottis, because we may have two affections from pressure on the recurrent laryngeal nerve; namely, spasm or paralysis.

These symptoms subsided under treatment, and he felt tolerably well up to last March. Does this improvement militate strongly against aneurism at that time? Not at all, for we find cases improve sometimes, especially under certain measures of treatment, in a remarkable way. He felt tolerably well up to last March, when he woke up one

morning with great dyspnœa. The voice again became weak, and he was generally debilitated, and he came to the hospital, therefore, on May 10.

Now, on May 10, this patient was much emaciated. He had anorexia, he was weak, and now a symptom here which is an interesting one; namely, both pupils were strongly contracted, as they are now. You have here a pretty good representation of the *pinhole pupil*, as it is sometimes called. Now, it is not uncommon to have this contraction of the pupil on one side, in cases of aneurism. It is one of the symptoms dependent upon pressure upon the sympathetic nerve of the neck. It is not very common to find it on both sides, showing that pressure is exerted upon both nerves. Now this occurs from various causes. I had, not long since, a case of aneurism under my observation, in which that was a pretty marked symptom, and I mention this as showing the effect of perhaps too confined attention to one subject: contraction of the pupil is one of the early symptoms in cases of locomotor ataxia, and this patient was supposed to have locomotor ataxia, or it was supposed on that ground he would be likely to have it, the fact of the existence of an aneurism not then being known.

Now for the physical examination. The evidence of a tumor was found on the left side of the chest; there is dullness over the tumor; the pulsations are heaving in character, extending as low as the fourth intercostal space. The heart sounds are increased over the tumor. A systolic murmur is heard, and a thrill is imparted to the hand over the tumor. There is tenderness of pressure over the sternum. The apex of the heart is in the sixth intercostal space, within the linea mammalis. He has bronchial respiration over the right side, with sibilant and sonorous rales; bronchio-vesicular respiration on the left side, with sibilant rales.

I may state what has not yet been inserted here, that a laryngoscopical examination shows paralysis of the vocal cord on the left side, showing that the recurrent laryngeal nerve on the left side is pressed upon. The aneurism is usually on this side when the recurrent laryngeal nerve is involved. The situation of the recurrent laryngeal nerve on this side renders it more easily affected by a tumor than on the right side. His voice to-day is reduced to a whisper. It differs on different days, as it usually does in

these cases, owing to the difference of pressure. That is a point of some diagnostic import, for in tumors of a different kind there is not enough variation in the size of the tumor from day to day to cause this difference of pressure, but there is an aneurismal tumor owing to different circumstances, as pressure of the circulation, the quantity of blood, the force of the heart's action, and so on.

We have here, gentlemen, in this situation a distinct impulse; it is easily felt, and it is of considerable strength. Perhaps you can see that my hand is pressed upward. The thrill I do not perceive at the present time. You perceive that there is a dullness over the tumor when we percuss. There is a systolic murmur, easily recognizable, but in itself of no diagnostic import. There is not a double murmur. I have spoken of tumors which are not aneurismal, but pressing upon large arteries, giving us sometimes a double murmur, but we by no means get a double murmur in all cases of aneurism; and, moreover, the cases are not very rare in which we get no murmur at all over the aneurism. The absence of a murmur is never to be taken as a point of sufficient importance to exclude aneurism. Now, there is a sign here which, I think, is of more importance than it is the custom to attribute to it, and that is the distinctness with which the heart sounds are transmitted to the ear. In cases of aortic aneurism that is a marked feature, as a rule; the heart sounds are very loud, near the ear. The conduction of the heart sound is such that we have that sound. We do not have it in the affections of the heart, and, therefore, if we exclude consolidation of the lung, that is a point of considerable importance. Both sounds are unusually distinct, so much so that formerly it was supposed the sounds were reproduced within the aortic aneurism; but that is an absurdity, they are conducted there, not reproduced.

Now we look for other signs of aneurism. We do not need any more. We do not need even as many as we have to make the diagnosis, but there are other signs which we are to look over in cases not so clear in a diagnostic point of view as this. Where there is obstruction of the trachea we have feeble respiratory murmur on both sides of the chest. When there is obstruction of one of the primary bronchi, we have feeble respiratory murmur on that side while there may be exaggeration on the opposite side. And it is easy to determine whether the trachea, or one of

the primary bronchi, is pressed upon. When we find these signs, we should at once have our attention directed to aneurism. We should also compare the arteries in the arms, the one with the other. I do not get the evidence that this tumor presses upon the subclavian artery on either side sufficiently to affect the pulse at the wrist.

It is very easy to perceive that this tumor presses upon one of the primary bronchi. I get a well-verified vesicular murmur upon the left side, while on the right side it can scarcely be appreciated. This tumor, then, does press upon the left primary bronchus.

Now, to direct your attention to the heart a moment. The apex is lowered; so stated in the record. Yes, it is a little below the sixth. Is that evidence of enlargement of the heart? No, because a tumor situated as is this will depress the heart somewhat, and carry the apex a little lower without the heart being enlarged. It has been contended that aneurism does not lead to enlargement of the heart, provided the heart be free from valvular lesions. I am not prepared to accept that statement. I can not but think that the opinion generally entertained is generally correct, that aneurisms do lead, by obstruction which they offer to the circulation, to an enlargement of the heart; but they may cause an evidence of enlargement afforded by the situation of the apex beat by simply pressing the whole heart downward. So that, finding, as we do here, the apex beat somewhat lowered, we are not safe in at once concluding that we have enlargement.

Well, now, gentlemen, I have gone over the important points connected with the physical signs and the diagnostic symptoms of thoracic aneurism. Of course, I might amplify the subject considerably. But the important point, so far as the patient is concerned, relates to the treatment. In a certain proportion of cases the effect of the iodide of potassium in this affection is truly marvelous, as is true of many other remedies which have a remarkably desirable effect in some cases; we do not obtain this effect in other cases. That is true of this treatment in this disease. I have seen in my own experience quite a number of cases in which the effect of this remedy was truly marvelous. This patient is taking that remedy. He is taking ten grains three times a day. But, of course, it will be carried up to as large doses as will be tolerated; at the same time sustaining the patient by nourishing food, but avoiding an excess of food.

By no means reducing him, or placing him on a reduced diet. Give him a diet ample for nutrition. I might make some remarks here upon the plan which has been proposed of late years, of absolute rest and a rigid regulation of the diet, the regulation not consisting in a reduced diet, but in an effort to adapt the diet as exactly as possible to the wants of the system. I will simply remark, that in hospital patients it is very difficult to carry that out. I have attempted it in some instances, but not with very satisfactory results.

## Clinical Lecture on a Case of Uterine Cancer, with Remarks Upon Treatment.

BY WM. GOODELL, M. D.,

Professor of Clinical Gynæcology in the University of Pennsylvania.

GENTLEMEN:—Mrs. X. presents herself before you, complaining of "whites," frequent hemorrhages and failing health; and gives the following history: She is about thirty-five years of age, married, and has had two children, the younger being a little over eight months old. She has not had any miscarriages, and has been in good health until after the birth of this infant she speaks of. No especial difficulty was experienced in her delivery, and she had a good getting up. Her child is not with her, but she says that it is well nourished, and as large as it should be for its age; she is still nursing it. She had not been subject to leucorrhœa, except occasionally after her menstrual periods, until about ten weeks ago, when she noticed a vaginal discharge, which was of a watery character, and so copious that for a time she thought her urine was dribbling away. About two months ago she had quite a profuse uterine hemorrhage, which appeared after sexual intercourse. It has been nearly constant ever since, sometimes, indeed, amounting to a flooding, so that she has lost a large quantity of blood. This partially accounts for her sallow and anæmic appearance, but not wholly. She has noticed, for the last four weeks, that the blood is clotted, and that, mingled with the discharge, are small pieces of flesh. With all this she has not suffered from any pain, yet her general health has failed, and she feels weak; this debility, however, she attributes to the nurs-

ing, for she does not feel as well now as she did when the child was born. She appears emaciated, and her skin is leaden, and lacks the hue of health. She has, indeed, the appearance of one laboring under some cachexia. Pushing our queries further in the direction of her family history, we learn that her father is still living and is unusually vigorous; but that her mother had a malignant tumor removed from her eye, and subsequently perished with secondary tumors in the abdomen. The patient has several sisters, but none are similarly affected.

The history of the patient's disorder, the characteristic local discharges, and the profound systemic disturbance, clearly point to malignant disease of the cervix uteri, which inspection only too fully confirms. She is aware of the nature of her affection, and has traveled for some distance in order to get my advice, and to obtain relief by operation, if I think it needful or expedient. A rest of several days in the hospital will be required previous to any interference, and in the meantime I shall decide upon what course to pursue.

For the purpose of convenience of inspection the patient has been placed in Sims' position, and, as I expose the parts with the duck-bill speculum, you can see the large fungous mass of exuberant vegetations springing from the cervix and filling up the whole upper portion of the vagina. This is the source of the copious watery discharge containing granulations; and from this mass comes the hemorrhage, which she tells us was first excited by sexual congress. I will now dismiss the patient to the ward, while I make a few observations upon her disorder from a clinical point of view.

The only difficulty that could arise in the diagnosis of epithelioma of the cervix uteri would be in its earliest stage. The frequent hemorrhages, alternating with a strong-smelling, colorless vaginal discharge, containing pale vegetations looking like small fragments of macerated flesh, occurring in a woman of about forty years of age, or older, are suspicious symptoms. But the crater-like ulcer having a sharp edge and a dense, rough surface covered with granulations, which are easily broken off and easily bleed, and the form in which a friable fungous growth fills the cervical canal and projects from it into the vagina, equally disclose by digital examination the malignant character of the disease. The speculum even

is liable to break off these exuberant granulations, and, indeed, sometimes causes troublesome hemorrhage. Should the cervix feel like fibro-cartilage, and the os remain firm even after the introduction of a sponge-tent, we then have to deal with another form of cancer, more slow in progress, but not the less malignant; for it is generally held that epithelioma, especially the vegetating variety, is the least malignant of all the forms of uterine cancer, and the most amenable to treatment.

The distinction between the several forms of malignant invasion of the cervix possesses much pathological interest, but is far less important from our standpoint than the location and extent of involvement. Having determined their malignant character in general, the next step is to attempt to determine the extent of the disease, in order to decide the questions of treatment and prognosis.

However early the affection may be recognized, it is never too early to get rid of the diseased structure, always going beyond the limits of invasion in order to insure its entire removal. This may be accomplished by the ecraseur, by the galvano-caustic loop, or by careful and thorough scraping with Simon's curette, and the scissors, or Reamy's gouge forceps. With these instruments the diseased structure is patiently scraped and cut away until healthy tissue is reached. The operation, however, is not completed until the excavation resulting is thoroughly cauterized with the actual cautery or by fuming nitric acid. This latter application need not be made until a few days later, when the sponge tampon, introduced after the operation, is removed. Since most of you have repeatedly seen me perform this operation, and since I shall soon operate on this woman before you, I shall not go into further details. The subsequent treatment by the mouth is the administration of arsenic, iron and ergot. Abstinence from sexual intercourse should also be strictly enjoined, for it is liable to cause alarming hemorrhages from the impact of the male organ on the ulcerated sore. At the first sign of a return of the disease medical advice should be again obtained. Should the disease prove so extensive as to forbid another operation, much may still be accomplished for the relief of the patient by palliation. The constantly recurring hemorrhages require ice-water injections or suppositories containing astringents, which can be employed by the patient herself. If these prove in-

sufficient, a tampon of cotton-wood, dusted with alum or tannin, or with dilute Monsel's solution, will be required; but it should not remain in position longer than about three hours, otherwise it may adhere to the friable vegetations and pull them away, causing fresh bleeding. The insufferable stench from some of these cases may be measureably made less overpowering by frequent vaginal injections of a dilute solution of potassium permanganate or of chloral hydrate. The latter I generally use, as I believe it possesses local anæsthetic in addition to its detergent and disinfectant qualities. The last resource of medical art, euthanasia by opiates, is all that can be offered to advanced cases, and when the sufferings are very severe it is a boon to be gratefully accepted and welcomed by the sufferer.

Total extirpation of the uterus, by means of laparotomy is a desperate remedy which offers a chance of relief, but is only justifiable where the disease is strictly limited to a movable womb. This procedure has been recommended by Freund, and has been performed some twenty-eight times, with but nine immediate recoveries. Most of the latter cases subsequently perished from a recurrence of the disease. The prospect, you see, is not encouraging, but in such a fatal disease anything offering a ray of hope is eagerly embraced by the patient.

It is worthy of remark that malignant disease of the cervix occurs most frequently in women who have borne children, and, in my experience, in those who have met with a laceration of the cervix. These facts favor the view of its primary local character. But in addition we have the fact that its subjects are generally women in good health, who are ruddy and well nourished, until the cancer ulcerates. Then by absorption of the products of the disease they lose flesh and become leaden in complexion through a systemic infection sometimes termed the cancerous cachexia, but which, in reality, it appears to me, is due more to septicæmia than to any specific impression by the malignant disease; for when the ulcerated surface is removed by an operation, their complexions invariably clear up and they gain flesh.

## Two Cases of Rupture of Uterus.

BY S. HUDSON, M. D., MEDINA, OHIO.

During the time I have been engaged in the practice of medicine, it has been my lot to meet with two cases of rupture of the uterus. I believe, as a general thing, such cases are almost invariably fatal, as were the two I had the misfortune to witness. I shall not attempt to enter into a discussion as to the cause or pathological condition, but merely endeavor to give a brief description as I found them.

In the fall of 1874, I was summoned, in great haste, to see Mrs. C., aged thirty-six, in her third confinement. The messenger told me to bring my obstetrical instruments, which I did, and hurried to the place with all possible dispatch. On arriving at the house, I found the woman under the attendance of an irregular, who informed me that the lady had been in labor for the last twenty-four hours, and that her pains had been very hard, but had ceased entirely about half an hour previous to my arriving. I found the patient *in articulo mortis*, breathing at long intervals, with deep and heavy inspirations, face pallid, lips of a dark purple hue, pulseless, extremities cold, and her abdomen distended to its utmost capacity. I made a vaginal examination, and found the os dilated to about the size of a nickle. She continued to grow worse and died within ten minutes from the time I first saw her.

I intimated to her friends that I believed the cause of her death to be a rupture of the uterus, and solicited a *post-mortem* examination, which was granted, and was made the next day. There was found an oblique rent, from five to six inches in length, situated on the posterior part of the uterus opposite the promonotory of the sacrum. There was no hemorrhage externally while she was in labor, the head of the child blocking up the pelvis so as to prevent it, but a large amount of blood had escaped into the abdominal cavity. The immediate cause of death was excessive hemorrhage. As to the cause of the rupture I am not prepared to say. The appearance of the child was healthy.

My second case occurred last summer. Mrs. A., aged forty-two, in her sixth confinement, was taken in labor about 9 P. M., and sent for her family physician, who saw

her a little before midnight. From him I learned that from the time he saw her until early next morning, she was, to all appearance, doing well; that her pains were regular, and continued to increase in frequency as well as severity until about 7 A. M., when, all of a sudden, they ceased entirely; that she commenced to flow externally, became livid, with difficult respiration, etc. It was at this crisis I was sent for in great haste, a distance of five miles, with instruction to bring my obstetrical instruments. The message was delivered, and I responded promptly. It was 9 A. M. when I reached the place, when, to my surprise, I learned that the lady had been dead about half an hour, the attending physician having left.

From the history and information which I gathered from the friends and relatives, I became convinced that she had died from rupture of the uterus, and so expressed myself to the friends, all of whom were very anxious to have a *post-mortem* examination. I left with the understanding that I would return at 4 P. M. with Dr. Jones, and that their family physician should be notified of the intended examination. One special object I had in view in making the autopsy was to avoid the censure which was being dealt out without measure to their physician, believing, as I did, that he was not to blame in the case. Every physician knows how ready and willing a community is to cast reproach upon the medical profession in those unfortunate cases, no matter whether blameable or not. The *post-mortem* was held at the time agreed upon by the parties. The usual incision was made, and revealed the uterus, in which a fully developed child still remained, notwithstanding a large transverse rent, from six to eight inches in length, on the anterior portion of the uterus, about four inches above the os. The lesion in this case was undoubtedly the result of inflammatory action, as there was a space about an inch and a half wide, extending nearly one-half the circumference of the impregnated uterus, in which the rupture had occurred, and in which a change of structure, texture and color had taken place, to such an extent that I could readily pass my finger through the diseased part with but little resistance.

In the first case described, I scarce know what I should or could have done if I had been there when she was first taken sick. From all that I could learn, her pains at

first were regular and natural, but subsequently became terrific, and then, all at once, abruptly ceased. Could a competent accoucheur, under those circumstances, have foreseen the difficulty and danger and have saved the life of either the mother or child? In the second case, had I been with the mother at the time of the rupture with my instruments, I believe I could have delivered her, and, perhaps, have saved the life of the child; as labor had so far advanced that the child's head could have been easily reached with the forceps and delivered. As to saving the life of the mother, I believe that to have been out of the question, owing to the diseased condition of the uterus. Her husband informed me that she had complained of a pain in the lower part of the abdomen during the last three months of her pregnancy, and had all the time persisted in the idea that she would never live through her confinement.

A rupture of the uterus is one of the most dreadful and fearful accidents than can possibly happen to a paturient woman. It is fortunately of very rare occurrence, there being many physicians, who have practiced from thirty to forty years, and have done an extensive obstetrical business, who have never been so unfortunate as to have met with a single case.

## The Use of Thymol in Burns and Wounds.

BY DR. FUELLER, OF NEUKIRCHOF.

Translated from the Homöopathische Rundschau, June 1, 1880.]

A FURTHER very satisfactory application for thymol has been found in the treatment of extreme burns. As is well known, there have been numerous efforts made to apply the antiseptic method of treatment to burns, for the purpose of preventing the over-production of pus, and by this means to prevent undue cicatrization. As far as I am acquainted with the literature on the subject, Prof. Busch, of Berlin, in an article on the application of Lister's treatment to burns (Vol. 22, Arch. Clin. Surg.), first made mention of this treatment. There is also an instance mentioned by Prof. Von Nussbaum, in his brochure of instructions on the antiseptic treatment, and both of these

gentlemen declare themselves well pleased with the results obtained, especially in the smoothness of the scars.

The cases of burns occurring in this district are most frequently caused by fire-damp or powder. The burns from fire-damp are often very extensive, as the explosion of the gases takes place even in the space between the skin and the clothing. In burns from powder explosions we find the surface frequently filled with particles of powder and coal, which occasion inflammation and purulent discharge, most usually on the surface of the face and hands. It is not possible, in such cases, to cover the face with an occlusive bandage, and in the case of burns which cover a large part of the back or chest, besides the face and extremities, it is not advisable to cover so large a surface with carbolized gauze, the poisonous properties of carbolic acid in themselves forbidding such a proceeding. I have, therefore, adopted the following process for the treatment of burns, and have used it in fifty cases, which number were usually healed in three, and not later than four weeks, without any scarring, at least with smooth and tender, though somewhat reddish skin. There were two exceptions, in which death resulted from complications. Each patient, as soon as admitted to the hospital, receives a warm bath. The burnt surface and its surroundings are then washed with an aqueous thymol solution, of one to 1,000, followed by the application of thymol spray for several minutes. The blisters are not disturbed, but are handled with extreme care. The raw surface is then painted with a one per cent. thymolized linseed oil. The patient is then laid on a waterproof mattress, the temperature of the room being kept comfortably warm. Particles of coal or other foreign matter, if not too minute, are, as a matter of course, at once removed. It is often very difficult to so lay the patient that the burned places are relieved of pressure, and it is frequently necessary to allow him to remain in a sitting posture, sometimes for several days, with support for the chin, or even *a la vache*, by suspending him by means of wide strips of muslin, passing under the chest or abdomen; the strips being fastened above. The application of thymol should at first be repeated every ten minutes, and, as it relieves pain very remarkably, the patients themselves call for it. For this purpose we use large, soft-haired paint-brushes. At first the oil is absorbed somewhat rapidly, and as soon as

this has occurred, a sensation of intense burning follows. The applications are gradually made less frequently; as an indication of their necessity, the appearance of the skin is sufficient. As soon as the oil is entirely absorbed, it should be replaced by a fresh portion, as it is important to prevent contact with the air. During the first few days the thymol spray is also applied as often as possible, which does much toward alleviating the pain. As before mentioned, the blisters are allowed to remain undisturbed, so that the cutis may be protected from the influences of the air, or, rather, from septic matter contained therein; the liquid which they contain is usually absorbed, the blister contracts, dries and falls off, while a new epidermis is formed. Only in case of the serum becoming turbid, is it removed by opening with the scissors; this, however, is rarely necessary until about ten days after the accident. The scissors used are, of course, previously disinfected, the incision also being made under the spray, and is at once followed by an application of the thymolized oil, before described. The secretions, with remains of the epidermis and the oil itself, which is disposed to dry out, form a moist crust which is very effective in preventing the entrance of bacteria, or irritating septic matter. When the applications are decreased in frequency, the crust becomes drier, and, finally, after separation, we find a tender, reddish skin, which can not be called a scar, as it possesses no unevenness of surface, and is perfectly elastic.

The practical experience with this method has been attended with such favorable results that I communicate it in the hope that others may continue it, and especially in mining districts. During the first weeks we frequently observe an elevation of temperature, at times to over 39° C.; the patient, however, does not find the fever oppressive, nor is there much thirst, the tongue remaining moist and the appetite good. Delirium has not been observed in any case. The patient escapes septic fever, the tissue which has been destroyed, often considerable in amount, being completely disinfected before being liable to absorption. The patient is free from pain, and the principal complaint, quite universal, is the one occurring in all cases of serious burns, the chilly sensations.

## Unsanitary Condition of Summer Resorts.

AT a time when a large majority of our citizens have returned, or are about to return, to the city after the summer vacation, it is far from gratifying to learn that during the time of their sojourn they may have been exposed to all the dangers that belong to unsanitary surroundings. And yet this is a possibility which can be proven by the stern logic of facts as gathered from different authentic sources. For instance, in the recent report of the State Board of Health of Massachusetts, we have presented by Mr. Bowditch, an engineer of Boston employed by the Board for the purpose, a detailed account of the sanitary survey of several health resorts in that State which is highly interesting in connection with the subject under consideration. The investigations centered upon Martha's Vineyard and its system of drainage, and afterward included other noted summer resorts within the jurisdiction of the Board.

Mr. Bowditch, as the result of his critical survey, arrives at the somewhat startling conclusion that scarcely one of the one hundred and fifty hotels or summer boarding-houses examined by him is in a wholesome sanitary condition. The details of these examinations, as might be anticipated, repeat the old story of insufficient drainage, cesspools and privy-vaults in close proximity to wells, and perpetuation of the means of sewage disposal that possibly originated with the early Puritans. And when there appears a desire to improve upon the old system by some enterprising landlord, the result is so far from what it should be, that new dangers are superadded and extra risks to the health of the inmates are taken. Upon this point he pertinently remarks:

"In looking over and testing the sanitary arrangements of summer dwellings it is curious to see how the typical New England privy and sink-drain have been perpetuated, either as a whole or in part, and how very few people have even attempted to improve in this direction. Occasionally a hotel proprietor announces with pride that he has just purchased the very best water-closet that money will buy; or that all the faucets in the house are triple plated and of extra size; but it seldom occurs to him that possibly the soil-pipe into which the water-closet empties may be a condemned water-pipe, or that his fau-

cets may drip into untrapped sinks—that there is even a possibility of there being anything wrong in the system."

Substantially the same thing may doubtless be said of the summer hotels all over the country. And this condition is not limited to the second-rate establishments or to the commoner farm-houses which have been prepared in the ordinary way for the reception of boarders.

The same evil exists, proportionably magnified, in the leading caravansaries of the country. Only recently the New York *Herald* gave a detailed account of the system of sewerage on Coney Island, which shows how little has been done in that locality toward supplying the sanitary wants of the large number of visitors who constantly throng there. The disposal of sewerage in holes in the sand, or in small and sluggish streams, is but inviting an unsanitary condition of things second only to that which was so recently found in Memphis. Taking the country through, including the thousands of farm-houses which are used for city boarders, it is safe to say that there is not a greater proportion of landlords who have attended to the necessary sanitary requirements than is mentioned by Mr. Bowditch. It is the rule in all suburban districts to find sanitary regulations at a discount.

The typical farm-house, for instance, has its privy pit, refuse drain, barnyard and well within convenient distances from each other, because all must be near the house. In one of the cases noticed in the Massachusetts Health Report, a small barrel was placed against the well curb, because such was a handy situation for the servants. In another instance the cesspool was directly under the parlor windows, and was so offensive that it kept the proprietor awake at night. On this account it was removed to a slightly more convenient distance. In a well, selected at random, four privies and one cesspool were situated within an area of twenty-five feet. But to follow the report any further as regards these points would be a needless repetition of detail.

The same state of affairs as found in isolated houses are multiplied in the smaller villages, and with a corresponding increase of danger to the inhabitants. The existence of privy pits in close proximity to wells is part of the history of a large majority of the villages in this country. The startling disclosures regarding the water-supply of Memphis and the condition of its subsoil drainage in that

city have more or less of a parallel in many large towns. The natural growth of our villages has had a great deal to do in inviting a neglect of sanitary rules. From mere settlements they have grown to towns and cities, each householder taking care of his own drainage and getting it as far from him as he could, irrespective of his neighbor. It is easy to imagine how soon the soil may be saturated with disease germs, and how, at no distant period, the extra virulence of an epidemic in certain localities may be explained.

In the religious camping-grounds there is being developed a condition of things which sooner or later will call for a radical change in the systems of drainage and water supply. Like the resorts on Coney Island, the population during the summer months reaches to many thousands, and, like Coney Island, no suitable provisions are made for the sanitary safety of these large numbers. They are examples of cities that have sprung from nothing, with the requirements of metropolitan centers, and yet with the sanitary conveniences of the merest country boarding-houses. In some quarters the managers of these resorts have striven to meet the emergencies, but at best with quite indifferent success; while in other places, like the managers of smaller country hotels and farm boarding-houses, they have calmly ignored the whole subject.

It is not fair to suppose that these unsanitary conditions are the result of obstinacy on the part of those who should remedy them, but to ignorance of ordinary sanitary laws. Not that the average landlord and the thrifty manager do not know that it is to their interest to keep their premises clean and healthy, but that they are ignorant of the best and most economical ways to accomplish it.

The real remedies very naturally suggest themselves in this connection. There is obviously a need among the people for education in the simpler principles of sanitary requirements, and also a necessity for systematizing such for the good of the greater number. Naturally the various Health Boards are the bodies to which we must look for efficient work in this direction. Inspection first; suggestions next; and lastly, if necessary, the systematic enforcement of sanitary rules. The Massachusetts Health Board has shown a good example in this direction, and other State and local Boards of Health will do well to

follow it, resting assured that in no more profitable field of sanitary investigation and reform could their best energies be directed.—*Medical Record.*

## The Alum Plug in Uterine Hemorrhage.

The speedy method of arresting uterine hemorrhage by placing a lump or crystal of alum in the vagina, originated with Prof. R. Beverly Cole, of this city. As long ago as 1860 he drew the attention of the profession to its merits. The article describing its mode of application, etc., may be found in the San Francisco *Medical Press* for January, 1860, and in the American *Medico-Chirurgical Review* for July, 1860. It is also summarized in the New Sydenham Society's Year-Book of Medicine for 1861.

In the Louisville *Medical News* of April 3d, there appears a glowing eulogy of the alum plug, from the pen of Dr. R. W. Griswold, of Rock Hill, Conn.; who, while laying no claim to the invention himself, does not know to whom it should be credited. He says:

"And this brings me to the point of speaking of my own method of treatment, viz.: the introduction of the *alum egg.* . . . For the last twenty years my reliance has been on a junk of alum in the vagina. If this is not at hand I take the next best thing that is; but a junk of alum is a part of the contents of my medicine-box. It is of the size of a large hen's egg, ovoid in shape, and generally left a little ragged, though without sharp points. Around the middle is cut a groove, about which is tied a bit of strong but not large twine, leaving the ends so that they can hang out of the vagina. . . . This treatment is easy, speedy and effectual against further hemorrhage. It has never failed me, and I leave a patient with the feeling that she is safe for the next twelve or fifteen hours, so far as danger from further bleeding is concerned. And I may add that I have never had any unfavorable effects follow its use in any one of the scores of cases in which it has been employed—no fevers, no septicemia, no deaths, no anything untoward—and I have never had occasion to use it the second time in any one case.

"Perhaps this is nothing new; but as it is something I have not seen mention made of in any of the standard works that have come under my observation, nor in spe-

cial papers, nor have ever heard of in the lectures of the schools, I venture to submit it to your columns, and through them to professional notice."

Whether this simple yet effectual expedient is mentioned in "any of the standard works" we know not, but certainly it ought to be. Dr. Cole has advocated its employment in a certain class of cases for the last twenty-three years. As Professor of Obstetrics and Gynecology in the University of California, he has taught it in his lectures and demonstrated it in his clinics to successive classes of students, and there are few physicians on this coast who are not familiar with its value in the hemorrhages of abortion, etc.

These facts are submitted to Dr. Griswold and the Louisville *Medical News*, knowing how ready they will be to place the credit where it belongs.—*Western Lancet.*

## Abscess of the Liver.

That abscess of the liver obtains more frequently than is generally known, I am well convinced. Three cases have come under my observation within a year, and I feel quite certain that others have been overlooked. The case of Dr. E. S. Gaillard, a reprint of which may be found in our March number, stimulated me to a more vigorous pursuit, careful examination and studious investigation of this whole subject. Our readers might do well to turn to that article and study it carefully. Many hints of value may be gained in diagnosing abscess of the liver from the history of this case.

On September 5 I was called fifteen miles in the country to see August De Jail, a farmer, about forty years old, who had been suffering from some doubtful ailment for two months. The attending physician, not being present when I reached the patient, I did not venture to make such a thorough examination of the case as seemed positively necessary; and the physician in charge being an allopath, still further restrained me. But I was forcibly impressed, by the examination hastily made, that the man was suffering from abscess of the liver—right lobe. And I went so far as to express my convictions to the patient and friends, at the same time promising to see the patient again the next evening, when the attending physician should be

requested to meet me, that we might arrive at some definite and satisfactory conclusions and course of treatment. Pursuant to this arrangement, we met on the evening of the 6th, about 10 o'clock. The attending physician had seen the patient during the day, and had expressed doubts about the correctness of my views, and when we met he was still lingering in doubt. But we carefully examined the case, and, by imitating the process described on page 98, this volume of the *Journal*, we became satisfied that an abscess was found. So firm were my convictions from the first examination that an abscess existed, I took an aspirator with me the second visit, and proposed to use it at once, after a consultation with the attending physician. He reluctantly consented, but the patient and friends showed great anxiety, and expressed eager desires to have the operation performed.

Looking at the patient before us, as he lies on his back, we observe a picture of distress. The eyes express anxiety and helplessness. The corners of the mouth are drawn backward and downward. Respiration about twenty per minute. Pulse one hundred and rather feeble. Temperature a little above the normal standard. Has a hectic fever with evening exacerbation. Considerable emaciation, with edema of the lower extremities. He suffers from pain in the region of the liver and stomach. Bowels move once daily. No appetite, no sleep. This is an outline picture of our patient before using the aspirator.

All being ready and willing, we gave the patient a little brandy and aromatic spirits of ammonia, adjusted the aspirator, smeared a little carbolized petroleum upon the needle, and at a point about two inches in advance of a line drawn from the axilla to the pelvis, between the eighth and ninth ribs, through the intercostal space, we thrust it to the depth of two inches and a half. At first, nothing appeared in the tube or receiver, but I could readily detect, by a little handling of the needle, that it was in a free space—not in a solid body—and ordered a little stronger pressure by further exhausting the air chamber of the aspirator, and the pus began to flow, and continued to run until three pints were drawn. This removed all doubts about the abscess. The only question now is, can we succeed in holding the man up; can he possibly recover? Well, he stood the operation bravely, without a whimper, and expressed himself as feeling

greatly relieved. Ordered maltine wine, with dilute phosphoric acid. For three days he was comparatively comfortable. His appetite returned, he slept better, and fever was of no consequence. After this he gradually grew more restless, more feverish, and complained of pain in the region of the liver and stomach. On the 12th, the seventh day after the operation, I visited him, and found that the cavity had filled up again, and felt satisfied that we should have to resort to the aspirator a second time, at least.

On the 15th I used the aspirator for the second time, and drew off five pints of pus. This again gave comparative relief, but our hopes of a cure were very much weakened by this rapid accumulation of pus. But we determined to see what we should see. At all events the aspirator is our main dependence. Continued maltine wine and dilute phosphoric acid. On the 19th I visited the patient and found that he continued to feel better from the hour we left him, the Wednesday night we used the aspirator last. Had but little fever since, tongue cleaning, pulse slower and better, has some relish for food and had walked across the room twice. A careful examination revealed the fact, however, that pus was still accumulating in the cavity, but not so rapidly as before. We order the maltine wine and dilute phosphoric acid continued, promising to see him again within a week, and, if necessary, use the aspirator again.

We shall watch and handle this case carefully and report the final result in a future issue of the *Journal.*—*American Medical Journal.*

## Origin of Blood-Corpuscles.

A MEMOIR by Pouchet, which has recently appeared in the *Revue Scientifique* (and which has been translated in the current number of the *Quarterly Journal of Microscopical Science*), discusses the interesting subject of the mode of production of the red blood-corpuscles. It is not a little remarkable that the origin of the formed elements of the blood should still continue to be a matter of hypothesis, and that physiology is incapable of replying to the question, How, after large losses of blood, is its restoration effected? The present generation of prac-

titioners are hardly aware of the quantity of blood that was taken from patients in acute disease by the physicians and surgeons of the past age. If works, written in the early part of the present century, are referred to, some surprising facts of this nature will be found. At the time when Sir W. Lawrence's treatise on the "Venereal Diseases of the Eye" was published—that is, in 1830—bleeding was the approved method of treating gonorrhœal ophthalmia; and, among other cases he records in that work, there is one of a pugilist, who was, no doubt, an athletic, freely living man, but who, having contracted gonorrhœal ophthalmia, was admitted into St. Bartholomew's Hospital, and from whom the surprising quantity of one hundred and fifty-two ounces, or nearly eight pints, reckoning twenty ounces to the pint, were abstracted by venesection, besides the application of thirty-two leeches, in the short space of one week. Nor was this a solitary case, for several others are recorded in which nearly equal amounts were taken. It is worth noting that the pugilist recovered with perfect vision. In the case of women, again, enormous losses of blood are often sustained in menorrhagia, which are yet quickly restored under favorable circumstances. Rindfleisch has made an estimate of the rapidity with which the reproduction of new corpuscles must take place in ordinary intermenstrual periods, and calculates that half a centigramme of blood is produced every minute, which means that about one hundred and seventy-five millions of red blood-corpuscles are produced every minute. When thus reduced to figures, it seems extraordinary that no answer can be given to the questions how and where this enormous proliferation is effected.

Is the process of renewal performed in some obscure organ whose function has been overlooked—the suprarenal capsules or thymus or thyroid gland, for example—or is it that the corpuscles, similar as they may all appear to our methods of investigation, are derived from many different sources, each set having its own special and definite functions, and differing in structure, purpose and destination from all the rest? The results of modern physiological research seem to point in the latter direction. Not many years ago the corpuscles were believed to be exclusively derived from the chyle, and Hewson's observations, to which Mr. Gulliver did good service in calling

attention, were essentially in favor of the mesenteric glands being the bed for the production of the lymph corpuscles, the nuclei of which acquired color and became the red corpuscles. More recently, however, the claims of many other parts of the body to be hæmatopoietic organs have been with more or less probability advanced, and the share of the spleen, the liver, the muscles, the cancellous tissue of the bones, and the peritoneum, in the process of blood formations, has been urged by different experimenters. Objections may, however, be raised to nearly every hypothesis that attributes the origin of the hæmatids to a single source. Even in the case of the lymphatic glands it may fairly be urged that they can not be exclusively concerned in the generation of the red corpuscles, since such glands are wholly absent in fishes; and the same objection may be taken to the view of Neumann and Bizzozero in favor of the cancellous tissue of the bones. And granting even that they are formed here, by what means do they traverse the walls of the capillaries, and how are they impelled into the current of the circulation? The fact that the spleen is absent in some animals, as the lamprey, and may be removed even in the higher animals and man without rendering them anæmic, disposes of the idea that it does more than aid in the genesis of blood-corpuscles, and, as Pouchet remarks, little weight can be attached to the statements that a new function can be vicariously performed by other organs of a totally different structure.

In regard to the derivations of hæmatids from the lymphoid patches of the mesentery, these regions can evidently play but a small part in the production of new corpuscles. Ranvier has, indeed, observed hæmatids originating in the midst of the vessel-forming tissue. But if this view be correct, the repair of lost blood would be necessarily associated with the production of new capillaries, which has not been demonstrated. This view, which is held by M. Pouchet himself, that the real origin of the blood-corpuscles is to be looked for in the hæmatoblasts or minuter form of globules, has been described by Hayem, and long before him by Donne, under the name of globulins. These bodies probably originate in the blood plasma, being primarily formed of albumen, to which subsequently the crystalline substance hæmoglobin is added, causing a great increase in the volume of the globulets. In the

blood of animals undergoing repair after large hemorrhages, an extraordinary number of hæmotoblasts or globulets may be observed. These rapidly enlarge in all directions, lose their granular aspect, and become hyaline, and, finally, assume the discoid form and the yellowish tint of the full-formed corpuscle. The hæmatids are on this view neither cells nor the descendants of cells, but may, like Topsy, be said to have simply "growed." It would seem that the generation of the red corpuscles is still a dark corner in physiology, and some further observations are still requisite.—*Lancet*, July 31, 1880.

## On Pilocarpin in Asthma.

Dr. William L. Mackesy, M. B., writes, in the *British Medical Journal* of August 7:

P. M. is a warder of H. M. Prison, Waterford (of which I am surgeon), and is about fifty years of age. His heart and lungs are perfectly sound, and neither father nor mother suffered from asthma. He had been for many years in the Royal Irish Constabulary; but, having one day fallen asleep in the open air, he awoke very much chilled; and from this he dates his first attack of asthma. He tried to carry on for some time, but the attacks becoming more severe and frequent, he had to leave the constabulary service. He then entered the prison service as warder; and his health, although he still suffered from occasional attacks, was much improved for about five years. This I attribute, in a great measure, to the exceptionally high ground on which the prison is placed. Last October, however, he was again attacked by asthma, complicated by acute bronchitis of both lungs, and very nearly lost his life. He, however, recovered, but since this time has been a martyr to the disease, with occasional remissions for a few weeks, and from the 4th of April, 1880, to the end of last June, had entirely to give up his duty. I tried all the usual remedies; smoking of stramonium and datura tatula, bromide of potassium, lobelia, etc.; also, I am almost ashamed to say, some patent papers for burning, viz.: ozone-paper and Palmer's anti-asthmatic papers (the latter, it is only fair to state, in general, giving prompt relief to the dyspnœa). He was about resigning his position in despair, when Dr. Berkart's valuable articles on

the treatment of asthma fortunately appeared in the *British Medical Journal*, and, on June 25, I gave him his first injection of pilocarpin, using Messrs. Savory & Moore's disks for the purpose, and commencing with one-twelfth of a grain. This had no perceptible result; so next day I increased the dose to one-fourth of a grain. This was followed by the usual effects—salivation and diaphoresis. There was no depressing effect on the heart's action, and he spent an unusually quiet night. Next day, and every day following for a week, I injected one-third of a grain with most beneficial results. One day, indeed, he suffered for a short time from nausea and vomiting, but this soon passed off. He resumed his duty as prison warder on July 4, and he informs me that he now sleeps the whole night, and, with the exception of a slight "choky" feeling on awakening first thing in the morning, which soon passes off, says he "never was better in his life." I am at present giving him arsenic internally and an occasional injection of pilocarpin. His appearance is much improved, and he is evidently increasing in weight.

## College of Physicians and Surgeons, New York.

### *Clinical Service of Edward C. Seguin, M. D., Professor of Diseases of the Mind and Nervous System.*

[Reported for the Philadelphia *Medical Times*.]

#### GENERAL PARESIS THE RESULT OF CRANIAL INJURY.

The patient before you is a man forty-one years of age, and a laborer by occupation. About seven months ago, while engaged at his work, a sledge-hammer, in the hands of a companion, when raised in the air, and about to be brought down upon a stake, which they were driving (or something of this kind), got caught in a pulley overhead, and, thus being deflected from its course, struck him upon the left temple. He was knocked senseless, but it was found that there was no bruising or tearing of the skin. When he recovered consciousness (which he did in quite a short time), he did not suffer from vomiting or headache, and, indeed, had no symptoms whatever until about six weeks ago. At this time he was taken ill, and was obliged to go to bed; but it is impossible, from the man's account of the attack, to form any definite idea of its nature. He

first noticed a weakness and numbness of the hands and feet, and, later, was troubled with headache, dizziness and blurring of vision. There was no diplopia, but occasionally he had hallucinations of sight, the imaginary objects that appeared being such as were connected with his daily work. Whether there was really delirium or not it is impossible to say, but there does not seem to be much doubt, from what he says, that there was more or less fever during the illness. This, of course, is a very unsatisfactory history; but we are obliged to content ourselves with it.

One week ago the patient was able to get about again, and since then, in addition to most of the above symptoms, which still remain, he has had considerable nausea and vomiting. The headache is principally located on the left side (that on which the blow was struck, you will remember), but is not confined to that, as it is also felt, to some extent, in the occipital region. The dizziness is quite marked, and, if he rises suddenly from a chair, for instance, it becomes very great. If we practice percussion or palpation on the left side of the head, we find considerable hyperæsthesia in the temporal and parietal regions, which is not the case on the right side. The dynamometer registers only nineteen and twenty-three for the right hand and eighteen and twenty-two for the left. This is exceedingly weak for the grasp of a workingman (not more than one-half what it should be normally), and, indeed, shows some loss of power since he was first examined by me a few days ago. When he walks, you perceive that he has a very staggering gait, and that he inclines distinctly to the right. Still, it is not at all like the gait of hemiplegia, but resembles very much that of an individual who is convalescent from some acute disease. From the weakness and numbness of the extremities, therefore, we conclude that he has general paresis. The pupils are normal, but the ophthalmoscopic examination shows that there is well-marked atrophy of the right optic nerve, as well as commencing atrophy of the left. There is, however, no neuro-retinitis, the outline of the disk being more distinct than usual. The heart is found to be normal.

On testing the sensibility of the fingers and forehead, it is seen to be quite unimpaired. About the face and forehead there has never been any numbness complained of,

but this has been a marked feature in regard to the hands I have often had occasion to remark on the difference between numbness and anæsthesia, which are so frequently confounded not only by laymen, but also by a large number of physicians. There is really no connection between them, and many years ago Brown-Sequard demonstrated that numbness represents an irritation of a sensory tract, while anæsthesia, on the other hand, expresses destruction of gray matter. Here there is no anæsthesia, the æsthesiometer showing that the sensibility is good both in the forehead and the fingers. The tongue is protruded in a perfectly straight manner, and there is no evidence whatever of any facial palsy. Over the supra-orbital nerve, as well as the scalp, there is considerable tenderness on pressure. Tendon reflex is found to be more marked than normal. Finally, there is no trouble with the bladder.

This case illustrates very well the remote effects of cranial injuries. The precise diagnosis is, indeed, a matter of some difficulty, but there seems to be little doubt that the lesion here, whatever may be its nature, is bilateral and basal as to location. We infer that it is bilateral because the results produced by it are not confined to one side of the body, and that it is basal because the phenomena in the case are chiefly motor in character, while the intellectual faculties are, apparently, not at all impaired. The staggering gait and other characteristics are plainly in support of this location as the seat of injury, indicating that it is just above the floor of the anterior fossa of the cranium. Whether the patient has at present anything more than a meningitis I am not prepared to state, but still I am of the opinion that his trouble is, at all events, principally meningeal, and that it involves the optic nerves, the cura cerebri, the pons Varolii, and other motor portions. I am not sure, however, that there is no parenchymatous lesion in addition, from the fact that no symptoms are produced as the result of injury to the first and second frontal convolutions of the hemispheres and the white matter beneath them, with the exception of headache in a certain proportion of cases. For instance, large abscesses, as I have previously had occasion to remark, may remain for a long time in this portion of the brain without any suspicion of their presence being entertained.

In the way of treatment, counter-irritation and iodide

of potassium are the agents upon which we commonly rely in traumatic meningitis, as well as cerebritis, although the latter is less amenable to any therapeutic measures. At the best, however, I fear that the prognosis in this case is anything but favorable. After a longer or shorter period I should expect epileptiform seizures to ensue; and it is, indeed, a matter of some surprise to me that the patient has not suffered from them before this. What I should recommend here, as the only course of treatment that offers any chance at all of success, would be for the man to keep perfectly quiet at home, remaining the greater part of the time in bed, and that both counter-irritation and the iodide of potassium should be persistently and continuously employed.

I believe that, as a general rule, practitioners of medicine do not have a correct appreciation of the results that are liable to follow a comparatively slight injury to the cranium, and many cases are thought to have recovered entirely which, if they were to remain under observation for a few months longer, would be found to terminate in very serious cerebral lesions. It is a fact, also, that a large number of children's heads receive injuries from falls, and in other ways, which entirely escape notice, as it is, of course, to the interest of the attendants to conceal their occurrence; and even when parents are aware of them they do not often attach any significance to them. Some time since, I saw the case of a child, in consultation with Dr. Weir, of this city, in which we made a diagnosis of meningeal hemorrhage, although no history whatever could be obtained of a traumatic origin of any such trouble. There were convulsions, followed by unconsciousness and a tetanoid condition, which lasted for several days, when the little patient died. Unfortunately, no autopsy could be obtained, but there could be little doubt of the diagnosis, since, after the death of the child, the nurse, whose conscience seems to have been quickened by the fatal termination of the case, confessed that shortly before the commencement of the illness it had fallen backward and struck its head. The injury thus received was in all probability the determining cause of the meningeal trouble.

Six years ago a boy was brought to this clinic who staggered in his gait, and was found to be the subject of partial paralysis, which affected one side of the body

more than the other. He also suffered from violent headache, strabismus and other symptoms denoting brain trouble. The diagnosis made was that there was some lesion of the cerebellum, and that this was probably of the character of an abscess. When death at length occurred, it was found, however, that this was not the case, the autopsy revealing the fact that there was cerebritis, with thickening and swelling, which involved the pons Varolii.

Perhaps the most common result of cranial injury is convulsions; and such a traumatic origin is often found in the history of epilepsy. In many such cases we can see the cicatrix where the injury was received; and experience shows that patients suffering from this form of epilepsy are usually incurable. In adults insanity also not infrequently results from the same cause: so that it has been found that out of all cases of insanity from five to eight per cent. are due to concussion, fractures and other injuries about the head. Some authorities estimate that the percentage is even higher than this. I am fully convinced, therefore, that individuals receiving cranial injuries should receive the most careful attention on the part of their medical attendants, and especially if there is any evidence of concussion present. If a child, for instance, after falling and striking the head turns pale and vomits, it should be kept perfectly quiet, and closely watched for a year following. Every slight symptom that appears should be looked after assiduously, and if the least evidence of paresis manifests itself it should receive the promptest treatment by means of counter-irritation, the iodide of potassium, and other appropriate measures.

Another point. If the injury is about the parietal region we are apt to have local paralysis on the opposite side of the body, because the motor zone in the brain would probably be involved in the lesion resulting. In such cases the best results are often obtained from trephining.

Finally, it is found that brain-tumors quite frequently result from cranial injuries. This at least has been my own experience, although all observers do not concur in this opinion. Did time permit, I might mention a considerable number of instances of such tumors that could be traced to a traumatic origin. Many of you will no

doubt recall the case of the boy in the institution on Blackwell's Island which I related to you last week, in which at the autopsy an enormous sarcoma was found that occupied fully one-half of one of the hemispheres. The starting-point of the difficulty had been a fall upon the head, which caused a fracture behind the coronal suture.

I will also allude to one other case, by way of example. Some time since I was called to see a case at Honesdale, Penn., in which the patient suffered from epileptic attacks and other cerebral symptoms which I need not describe here. On inquiry, I found that he had fallen from a wagon and struck his head, and, although there was no evidence of external injury about the cranium, concussion had undoubtedly been caused by the accident. The diagnosis that I made was meningitis; but after death a tumor as large as an orange was found. This, however, had given rise to marked meningeal lesions, and so I was right, in part at least, after all.

That tumors are not infrequently the result of traumatic causes is not true merely of those of the brain, since it is well known that various kinds of neoplasms are apt to originate in injuries of greater or less severity. Thus, epithelioma of the lip sometimes comes from the slight pressure of a pipe upon the part in smoking, and tumors of the breast, whether cancerous or sarcomatous, very frequently are due to a contusion. In claiming the same traumatic origin for cerebral tumors, I am not, therefore, stating anything that is not in strict accordance with the ordinary laws of general pathology.

## Microscopy.

### The Blood in Extreme Anemia.

M. Hayem classes under the title *aglobulie intense* all those cases of anemia characterized essentially by a globular richness of 2,000,000 to 800,000, and under the title *aglobulie extrême* the cases in which the number of globules varies between 800,000 and 450,000. The following are some of the special modifications of the corpuscular

elements that he observed in these two classes of anemia:

1. When a thin layer of normal blood is dried rapidly on a glass slide and covered with a cover-glass the red globules and hematoblasts remain indefinitely without losing their hemoglobine. On the other hand, in similar preparations of blood of persons affected with aglobulie intense, the hematoblasts and a certain number of the red globules are often seen at the end of one or more days to be surrounded with circles of small crystals, which are at first isolated, but subsequently unite to form more or less extended arborizations. This formation of crystals is observed no matter what may be the cause of the anemia—saturine poisoning, cancerous cachexia, hemorrhages, etc. It is observed in preparations of the blood of animals made anemic by repeated venesections. The crystals are very small, yellowish, or of almost the same color as the dried globules, and variable in form. They present the same appearances in the blood of men and animals. M. Fouque has found that they have no action on polarized light. While seeking for an explanation of their production M. Hayem found that the hematoblasts of the lymph are almost all transformed in the course of desiccation into minute crystals similar to those found in the blood of animals; absolutely similar crystalline arborizations are found in dry preparations of the lymph of dogs, or of the juice from the lymphatic glands of different animals—dog, cat, rabbit, guinea-pig.

2. When a fresh preparation of the blood in these cases of anemia is examined it will be noticed that a number of the white globules contain an abnormal quantity of hemoglobine, while they at the same time retain their physical properties, and especially their ameboid contractility. Desiccated preparations contain, then, very peculiar corpuscles. These are regularly rounded or oval elements, of large size, and of a yellowish color, which is sometimes almost as pronounced, especially at the edges, as that of the red corpuscles. They are flattened by the process of desiccation, but nevertheless retain a certain thickness, and as a necessary effect are surrounded by a dark circle. At first sight these elements might be mistaken for voluminous red corpuscles, but they differ from them in several important points, viz.: In the absence of biconcavity, in

the finely granular state of their protoplasm, and in the presence of one or more nuclei absolutely similar to those of the other white globules. They are undoubtedly white globules, which by virtue of the hemoglobine they contain have retained a certain thickness in drying. At times some of these elements are so thickly colored that the nuclear mass can scarcely be seen, particularly in recent preparations. These white globules, with colored contents, are much more frequently met with than the crystalline productions. Since 1875—when he first noticed them—M. Hayem has found them in all cases of intense and extreme aglobulie from any cause. They are exact counterparts of the globules found in the lymph of animals.

3. In some cases of extreme aglobulie white globules still more strongly charged with hemoglobine are found. When treated with a fluid which fixes the blood-globules, such as that employed in their enumeration, they appear under the form of irregularly spherical corpuscles, with a yellowish, crenated and changeable border. In the dry state they are almost always perfectly round, sometimes slightly oval, and are composed of a colored ring surrounding a granular and rounded nucleus. The outer ring is as deeply colored as the red corpuscles, and the whole presents the appearance of a nucleated red corpuscle. This variety of element is rare. M. Hayem has only met with it twice since 1875, both times in cases of extreme anemia due to cancer of the stomach. He suggests the probability that the nucleated red corpuscles said to be found by some authors in leucocythemia and pernicious progressive anemia, and regarded by them as intermediate forms between the red and white corpuscles, were really elements of the above kind. Analogous elements are found in the normal state in the lymph and the red marrow of the bones.

4. Finally, in these cases of extreme anemia, the small white globules are almost always more numerous than those of normal size, and some of them are as small as the smallest white globules of the lymph.

M. Hayem concludes from these observations that the blood in these cases of extreme aglobulie contains elements that exist normally only in the lymph and in lymphatic organs; or, in other words, that it consists of a mixture of blood, properly so called, and of lymph.

Instead of considering the above-described nucleated colored corpuscles as a transition form between red and white corpuscles, he sees in them a proof of the arrest of the hematopoetic function and an essential characteristic of anemia pushed to its farthest limits. When under these circumstances improvement sets in and the blood becomes richer the colored white corpuscles disappear, and at the same time a considerable number of hematoblasts and elements intermediate between them and the red corpuscles are produced. From observation of fifty cases of reparation of the blood after different maladies, he states it as his positive belief that the hematoblasts are always the precursors of new red corpuscles.—*N. Y. Medical Record.*

## Abscess of the Brain.

*The Journal of Nervous and Mental Diseases*, July, 1880, contains an interesting article by Dr. H. G. Beyer, P. A., Surgeon United States Navy, on Microscopical Studies on Abscess of the Brain. A number of sections from the wall of the abscess and the surrounding portion of the brain were made. The sections were stained partly in an ammoniacal solution of carmine and partly, after a thorough washing, in distilled water in one-half per cent. solution of chloride of gold. The sections were mounted in a mixture of equal parts of glycerine and distilled water. Mounting in Canada balsam or in dammar is unqualifiedly condemned. The inflammatory changes in the wall of the abscess, the white substance, the non-medullated nerve-fibers and the gray substance were all studied. The following conclusions were reached: 1. Gray substance of the brain by the inflammatory process is transformed into inflammatory or medullary elements, in the production of which the nuclei and ganglionic bodies also participate. Non-medullated nerve-fibers, through an increase of living matter in the axis cylinders, are likewise transformed into medullary elements. The same results are produced in inflammation of the white substance of the brain after the dissolution of the myeline. 2. The medullary elements, sprung from the gray or white substance of the brain, are transformed into connective tissue, either myxomatous or fibrous, and

thus the wall of an abscess in the brain is the result of the reduction of the brain-tissue, first into medullary corpuscles, next into myxomatous, and lastly into fibrous tissue. 3. Medullary elements, irrespective of which particular nerve-element they originated, when they are broken apart constitute pus corpuscles, and therefore the contents of an abscess of the brain. In the fluid of the abscess clusters of protoplasmic bodies are seen, proving a transformation of ganglionic elements into pus corpuscles by a process of endogenous new formation and subsequent division of living matter. All the stages of this process are observable within the ganglionic elements of the inflamed gray substance itself. 4. The endothelia of the blood-vessels become enlarged, coarsely granular and proliferating in the process of inflammation of the brain-tissue. The blood-vessels are found in the wall of the abscess. A consolidation of the blood-vessels, on the contrary, and a breaking up of their endothelia into medullary elements, afterward pus corpuscles, takes place whenever the tissue is destroyed by suppuration. Pus is mainly a product of the inflamed tissue itself, and not of emigration of colorless blood-corpuscles.—*Med. Herald.*

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THE THREAD WORM OF THE DOG.—The thread worm (*Filaria immitis*) of the dog was described thirty years ago in the "Proceedings" of the Academy of Natural Sciences of Philadelphia, and has since been repeatedly noticed as infecting dogs in Europe, India, Japan and this country. The heart of a dog, with the ventricles stuffed with the worms, is preserved in the Museum of the University of Pennsylvania. A specimen of the heart and part of one lung of a dog containing the worms has recently been sent to the Academy of Natural Sciences by Mrs. Laura M. Towne, of Beaufort, S. C., who has also furnished a description of the symptoms shown by dogs afflicted with the parasite. She had lost several dogs, and a gentleman living on a neighboring island had lost more than thirty hunting dogs in two or three years with the same symptoms. The most characteristic symptom appears to be a peculiar cough, which is excited by any movement, especially after sleeping, ending in a violent effort to bring something from the throat, but nothing is thrown up. When they began to run violently, the afflicted dogs

would fall down and become stiff and insensible, but would in a short time get up and renew the chase. A large Newfoundland dog grew ill, exhibiting the drowsiness, lassitude, and inclination to turn round and round when he attempted to go anywhere, which marks the conduct of sick dogs, and finally became subject to spasms. He was examined after death, when one *filaria* was found lying at full length in the windpipe, and others were found stretched at length and crowded closely in the large artery. Upon cutting into the heart, the worms burst forth in bunches, slowly uncoiling themselves. They were white, stiff and wirelike, and not at all stained with blood. The large bloodvessels of the lungs were filled densely, and large *filaria* were withdrawn with some difficulty even from the small ones. The worms lived in water about twenty-four hours.—*Popular Science Monthly.*

## GLEANINGS.

BY CHAS. A. L. REED, M. D., HAMILTON, OHIO.

CHRONIC INFLAMMATION OF THE LARYNX—APPEARANCES AND TREATMENT.—Dr. Thomas F. Rumbold (St. Louis *Med. and Surg. Jour.*), from advanced sheets of his forthcoming work on "Hygiene and Treatment of Catarrh," describes the appearances and presents the treatment of chronic inflammation of the larynx as follows:

I think that I can prove by inspection and treatment that fully nine-tenths of the coughs that are now treated with cod-liver oil—which when taken is as beneficial for the foot as for the throat—and by the sponge probang and brush being thrust into the larynx, are caused by a chronic catarrhal inflammation of the nasal and pharyngo-nasal cavities.

APPEARANCES.

The inspection of the vocal chords by the pharyngeal mirror, reveals them in a bright red or red color, resembling mucous membrane, instead of being pearly white, much like the white of the eye. The mucous membrane is darker red than usual, the blood-vessels larger than usual and a greater number of them. As inspection proceeds upward, the color of the mucous membrane becomes

still darker red, until the posterior nasal cavities are reached, where it is bluish red. The pharynx and posterior surface of the velum, when they are cleaned of the adhering muco-purulent secretion, has a relaxed appearance. The posterior wall of the pharyngo-nasal cavity as well as that of the pharynx are frequently studded with small elevations called follicles, and sometimes look like edematous drops. Sometimes the uvula is very much elongated. When such is the case, it is frequently made the scapegoat of the tickling, and uselessly excised.

TREATMENT.

The patient has a history of nasal and pharyngo-nasal catarrh that must be taken into consideration, for the treatment of the case without this would certainly be unsuccessful.

This complaint is never idiopathic, it is always secondary, a sequence of a long continued and neglected pharyngo-nasal catarrh; therefore to treat it properly, the nasal and pharyngo-nasal cavities should be treated along with the larynx, using spray producers, whose combined action will cleanse and apply remedies to the fauces, pharynx, pharyngo-nasal and posterior nasal cavities, and only sometimes the spray producers that act on the posterior wall of the pharynx down to the arytenoid cartilages and into the larynx, spraying with each instrument, one-half dram of vaseline and three or at the most five drops the following solution:

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|---|---|
| ℞. Pinus canadensis, . . . | grs xv |
| Glycerinæ [Price's], . . . | ʒ j ss |
| Acidi carbolici, . . . . | gr ss |
| Aquæ fervens, . . . . | ʒ ss |

M. F. Sol.

The vaseline and the drops should be well mixed and made *quite warm, almost hot,* before they are applied.

These applications should be made once daily, until the prominent symptoms have abated; then every other day until the secretions cease to be purulent; then twice each week until every symptom has disappeared, taking in all from six to twelve weeks. Should the symptoms reappear in the fall or spring they should be driven off by treatments given once or twice each week. Usually four to six treatments suffice on these occasions. Fre-

quently a prescription for a laxative and diuretic will be needed, as most of these patients are of a costive habit.

Should a cold be taken during the course of the treatment, I prescribe ten grains of quinia, to be taken at bedtime and five grains next morning, with an additional laxative.

Hygienic measures are of the utmost importance with such patients. Every precaution against catching cold by day or night should be taken. A *restricted and graduated use* of the vocal chords will be found in the highest degree beneficial for all whose voice have become any way affected. I usually give the following directions:

Commence by reading for about one minute (if this can be done *without* pain), then, on subsequent mornings, read one half minute longer each time. In this way the voice will frequently regain its usual tone and strength.

To improve the singing voice, my patients have found that it was quite beneficial to fill their lungs to their utmost capacity, and, with a *little less than medium force*, sound G continuously until the lungs are completely exhausted; then in the same way sound an A, follow this by sounding F, then B, then E, and so on, going each time higher and lower, until nearly the full compass of the voice is reached, always stopping on the least premonitory symptom of weariness.

It is usually best to take these vocal exercises immediately after the treatment, that is in the forenoon, as the effect of the treatment is always, or should always, be of a relieving and soothing nature.

Scarlet Fever.—Dr. David Prince, of Jacksonville, Ill., reports to a contemporary a case of scarlet fever with a definite period of incubation of *twenty-one* days, the disease being contracted by sleeping in a bed which had been occupied the night previous by a little girl who was two weeks recovered from the malady. This is a much longer period of incubation than is generally attributed to scarlet fever, some eminent authorities restricting the time to eight and nine days.

Dr. Prince's treatment of this case deserves mention. The bowels were kept open by f. e. senna with aromatices. During the acute stage of the disease he gave a teaspoonful every half hour, and afterward every hour, of the following mixture: "Place in a dry bottle one grain of

chlorate of potash, and one cubic centimeter of strong hydrochloric acid. On the development of fumes add water, one hundred and twenty cubic centimeters. Shake, in order to secure an absorption of the fumes, and add one hundred and twenty c. c. of syrup. Finally, add of tincture of chloride of iron four c. c. The mixture to be well shaken and well corked." This unquestionably represents one of the best formulas for administering the chlorine treatment, and it has the additional advantage that it is eligible to the country practitioner, who nearly always has all the requisite medicines with him.

Gangrene of the Lung—Recovery.—The *Lancet* of April 10 contains notes of the following case, which occurred under the care of Dr. Sturgis, at the Westminster Hospital. A man of twenty-seven, who had previously enjoyed good health, caught cold, with cough, pain in the left chest, with profuse expectoration and dyspnœa, which, during five weeks, became steadily worse. At the end of that time he was anæmic, weak and thin; his breath and sputa were of the characteristic odor of pulmonary gangrene. The sputa were frothy at the surface, but had a blackish-gray layer below On percussion there was a patch of dullness over the left base behind, about three inches square, and, on auscultating over this patch, crepitation of medium character was heard during inspiration and expiration. The other parts of the lungs gave evidence of bronchitis. Dr. Sturgis diagnosed the case as gangrene of the lung, and ordered the patient to be placed in a complete atmosphere of carbolic-acid vapor. A tent was placed around the bed-head, and vapor of carbolic acid was passed into the tent. The strength of the solution was one per cent. The patient was kept in this atmosphere for five weeks; for the first fourteen days the cough and dyspnœa were no better, but the offensive odor of the expectoration disappeared, sputa still giving evidence of pulmonary break-down. During the remaining three weeks of treatment the symptoms gradually improved, and the patient became better and stronger and increased in weight. The patient was finally discharged in good health.

The Management of the Uterus after Parturition—Subinovention.—Dr. Jas. H. Etheridge, in the Chicago *Med. Jour. and Ex.*, takes the position that the post-parturient

woman should remain under the observation of the obstetrician for the first two months after her *accouchement*. He assumes that attention from the physician is demanded until involution of the uterus takes place, an act which, it is estimated, is not complete until from six to ten weeks after parturition. To support his position that prevalent midwifery is guilty of carelessness toward the post-puerperal woman, he adduces one hundred consecutive gynæcological cases taken from dispensary practice, embracing thirty-four cases of hypertrophy, fifty-three of uterine catarrh, nine of lacerated cervix, two of prolapsus, one of metrorrhagia and one of retroflexion. Of these, fifty traced the origin of their trouble to confinements, twenty-eight to miscarriages, five to hard work and seventeen to unknown causes. Considering the fact that child-bearing is a physiological act, the showing of seventy-eight per cent. of cases with after trouble certainly indicates mismanagement, either before, at the time of, or subsequent to, parturition.

The Doctor classifies the causes of subinvolution as follows: (*a*) Faulty nutrition; (*b*) diathetic taints; (*c*) anæmia; (*d*) obstinate constipation; (*e*) laceration; (*f*) faulty hygiene; (*g*) depressing emotion; (*h*) the marital act; (*i*) neurasthenia. The treatment recommended embraces: (*a*) Correction of all alimentary derangements; (*b*) removal of anæmia; (*c*) neutralizing of the effects of diathetic taints; (*d*) closing of lacerations and using of needed mechanical supports; (*e*) ergot by stomach or rectum; (*f*) hot water injections *per vaginam vel rectum*; (*g*) dilatation by using tints; (*h*) uterine massage. Electricity is recommended as an efficient remedy.

Casts of the Uriniferous Tubules—Their Nature and Clinical Significance.—James Tyson, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania, thus concludes a paper published in the Philadelphia *Medical Times*:

1. Hyaline casts are found in all forms of Bright's disease, as well as in temporary congestions of the kidney, active or passive.

2. Epithelial casts are found in acute, sub-acute, and chronic parenchymatous nephritis. In the latter two forms the cells are generally degenerated and fragmentary.

3. Blood casts are found in acute parenchymatous

nephritis, and where hemorrhages have occurred in the kidneys.

4. Pale granular casts are found in interstitial nephritis (contracted kidney) and chronic parenchymatous nephritis.

5. Dark granular casts are found in parenchymatous nephritis, acute and chronic, and rarely in interstitial nephritis.

6. Waxy casts are found only in chronic Bright's disease, and attend either of the three principal forms.

7. Oil casts are found in sub-acute and chronic forms of Bright's disease, and attend either of the three principal forms, but are most numerous in chronic parenchymatous nephritis (fatty kidney).

8. Free fatty cells and free oil-drops are found in chronic parenchymatous nephritis.

9. The form of fatty cells, known as the compound granular cell, is found in acute and chronic parenchymatous nephritis.

Treatment of Pneumonia.—Commenting on a case of pneumonia in which speedy recovery had followed the use of ergot, Dr. Handfield Jones states that the action of the ergot seems to have been beneficial, though he does not attribute the cure solely to its agency. Ordinary pneumonia runs a determined course, the inflammatory processes terminating by more or less rapid defervescence about the sixth or seventh day from the initial rigor, while the exudation undergoes resorption sooner or later, according to the energy of the vital powers. Results which are therefore due in reality to the natural course of the disease must not be attributed to the remedies employed; moreover, any means which affect injuriously the strength of the patient, especially those which enfeeble the heart, must be carefully avoided. Though the disease can not be cured, its severity may be materially mitigated, and life may in some cases be preserved. Ergot and liquor ferri perchloridi may check and control the inflammation, opium may allay the pain, and calm and steady the nervous system; bark and ammonia with wine may give tone to the failing heart, especially in the collapse of the crisis; effervescing salines, or brandy and soda-water with or without a dose or two of calomel, may quiet gastric irritation, and enable the patient to take food better; quinine in large doses, or the cold bath may serve in dangerous

hyperpyrexia. Dr. Jones believes that no risk should ever be incurred with the idea of cutting short the disease. He also finds that ergot has, to a certain extent, disappointed his expectations, when employed in the various inflammatory affections, and of those more especially in bronchitis.—*British Med. Jour.*

The Hypodermic Syringe as an Aid to Diagnosis.—Dr. Greenfield has for some time employed the hypodermic syringe constantly and systematically, more especially in the diagnosis of chest diseases, when it has given valuable information as to the presence or nature of pleural effusions. It may also be employed either as an aid to treatment, or for the actual treatment of such cases, as when it is decided to aspirate or to introduce a trocar. In such cases it is very desirable to determine precisely the lowest point at which fluid readily flows, and in the case of loculated effusions to fix exactly the site of puncture. By no means can this be done so readily and so exactly as with the hypodermic needle. Dr. Greenfield is in the habit in all such cases of using this first. He often makes three or four punctures to decide upon the most favorable spot. This having been done, the size of the needle or trocar to be used can be accurately determined, as also the depth to which it must be inserted. In the case of small effusion, and also in empyema in infants, the hypodermic syringe may alone be used, small quantities of fluid being removed at frequent intervals. The same means may also be employed in many other circumstances. To fulfill all the conditions required of it, the needle should be fine, with a grooved and very sharp point; it should be made of polished steel, and should be kept well tempered as well as scrupulously clean. The syringe should be rather large, made of glass, with metal fittings, and the piston well soaked. The junction of the needle with the syringe mus' be thoroughly air-tight. The needle should not be less than one inch and a quarter, nor, as a rule, more than one and three-quarter inches in length. These details are essential if the pain is to be reduced to a minimum.—*Lancet.*

Martin's Elastic Bandage.—This bandage is used to effect even and persistent pressure upon swollen and inflamed limbs, thereby expelling the surplus blood from the vessels and preventing its return. It also supports

the capillaries and other vessels, and thereby promotes the absorption of effused liquids. It must not be applied too highly, as it will thus obstruct the circulation instead of merely *controlling* it. It is applied the same as a roller, care being taken that the limb is nowhere doubly wrapped, except where the bandage laps. It is as effective in relieving old as recent sprains, in chronic as well as acute inflammations of the joints.

Chian Turpentine, so highly lauded as a cure for uterine cancer by Prof. John Clay, of Birmingham, Eng., has been subjected to candid experiments by the English profession, and has failed to sustain the expectations raised by Prof. Clay's first reports. Among others who have tried it and reported adversely upon its merits, are the distinguished gynæcologists, Grailey Hewitt, of London, and Lawson Tait, of Birmingham.

Ergot in Pharyngitis.—In chronic pharyngitis, where the blood-vessels of the pharynx are enlarged and tortuous, and the secretion moderate, the following is recommended:

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| ℞. | Ergotine, | gr. xx. | |
| | Tinct. iodine, | fl. ʒj. | |
| | Glycerine, | fl. ʒj. | M. |

Sig. Apply to the pharynx freely twice daily with a camel's-hair brush.

The Sharker's Aromatic Elixir of Malt is a pleasant preparation of malt, which is prescribed extensively by physicians with very flattering results. An exchange reports a number of cases treated by it with marked success. It is without a number of objections possessed by some other preparations of malt, and is, consequently, tolerated by the most delicate stomachs.—*Med. Exchange.*

## Book Notices.

A Treatise on the Practice of Medicine, for the Use of Students and Practitioners. By Roberts Bartholow, A. M., M. D., LL. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, etc. 8vo. Pp. 853. New York: D. Appleton & Co. Cincinnati: R. Clarke & Co. Price, $5.00.

It has been some time since the friends of the author

of this work were made aware that it was being prepared, and it affords us pleasure to be able now to announce its appearance. In the preface the author apologizes for the delay in its completion, alleging that the incessant demands of a large private practice, and the onerous duties of an exacting professional position, has afforded him but little of that uninterrupted leisure essential for literary composition. We know enough ourself of his daily toil, the immense labor performed by him every day of his life, to know that his excuses are just.

The work is not so large as we were anticipating, consisting only of one volume of eight hundred pages, but this has resulted from the purpose of making it, so far as possible, a practical work. Matters, therefore, of "rather extraneous interest" have been omitted. Topics of general pathology, etiology, etc., with which the works on practice usually open, and which, "though sufficiently valuable in themselves, are too often passed over hastily, or not read at all, in the desire to reach the practical subjects," have been passed by. If, however, it is not so large as we had expected, it does not fall at all short in the merits which we had no doubt it would possess. In fact, when we come to examine it thoroughly, and regard it in its proper light as a *practice*, we are impressed with the feeling that its brevity is an excellence—an excellence of no little weight—especially when the brevity has been secured without the sacrifice of any important matter. Pathological discussions and historical disquisitions are given but little space—only so much of the pathology of a disease being stated, when it is described, as is necessary for its understanding—but pathology, at the present time, has become so developed that it forms a department in medicine itself, and, therefore, is best omitted from works on practice and relegated to works devoted to it exclusively. As well, almost, might a work now, on practice have chapters devoted to materia medica and therapeutics. This branch, then, being studied by itself, its details are not needed, and, consequently, their omission permits of no little condensation. Other matters seemingly have been regarded by the author in the same light, the book has been brought within the compass of fewer pages than we had thought, and yet everything presented belonging to a complete practice of medicine. We feel sure that Prof. Bartholow's work will begin anew in the

preparation of works upon *practice*. It will be the model work, such is the distinguished judgment exhibited in it as to what is essential and what is not. It fulfills our idea better than any work that has ever as yet been published.

As the author states, much of the matter embraced in a work of the kind is the common property of the medical profession. Nevertheless, having had a very extensive practice as army surgeon, hospital physician and private practitioner, he has had a wild field of observation and extensive experience, enabling him to speak with authority. If, at this time of advanced progress, there is not much opportunity of dogmatizing, still, one having the learning and logical discipline of Prof. Bartholow, could not help deducing many valuable conclusions in the course of the advantages he has enjoyed.

We predict for the work great popularity and a large sale. It will undoubtedly be much sought for by medical students, being so well adapted to their wants.

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The Skin in Health and Disease. By L. Duncan Bulkley, M. D., Physician for Skin and Venereal Diseases at the New York Hospital, etc. 18mo. Pp. 148. Price, 50 cents.

School and Industrial Hygiene. By D. F. Lincoln, M. D., Chairman Department of Health, Social Science Association. 18mo. Pp. 152. Price, 50 cents.

What to Do First in Accidents or Poisoning. By Charles W. Dulles, M. D., one of the Surgeons to the Hospital of the University of Pennsylvania and to the Presbyterian Hospital. 18mo. Pp. 66. Price, 50 cents.

The three little books, the titles of which we have given above, are published by Presley Blakiston, Philadelphia. The first two belong to the series of "American Health Primers," of which we have already noticed a number of works. All three contain a large amount of valuable information, worth many times the prices charged for them, and which can not be had elsewhere. The one on the skin contains a number of wood-cuts, which are very correct illustrations. As a popular work, it is well calculated to disseminate correct notions in regard to the skin and its diseases, and to instruct how the diseases may be avoided. The work on school hygiene contains very much valuable information, which should be generally under-

stood. It is well worth the study of every physician, teacher and parent throughout the country. In treating of *calisthenics*, the author speaks of military drill as follows: "Military drill is an excellent thing in general; it should, however, be restricted to the stronger boys. Small and weak fellows are easily injured by carrying a musket for a long distance. My friend, Dr. Buckminster Brown, has mentioned to me one or two cases in which he believed congestion or inflammation of the membranes of the spinal cord at the level of the shoulders to have been thus caused." The third of the three books contains much valuable information for the non-professional in cases of accident and poisoning, as in drowning and obstructed respiration generally; foreign bodies in the nose, ears and throat; fits and seizures of various kinds, effects of extreme cold and heat; injuries of the bones and joints; wounds of all kinds, as gunshot, contused, incised, lacerated, etc.; hemorrhages; railroad and machinery accidents; transportation of injured persons, poisoning, etc.

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A Treatise on the Diseases of the Eye. By G. Soelberg Wells, F. R. C. S., Professor of Ophthalmology in the King's College, London, Ophthalmic Surgeon to King's College Hospital. Third American, from the English Edition, with Copious Additions. By Chas. Stedman Bull, A. M., M. D., Surgeon and Pathologist to the New York Eye and Ear Infirmary Illustrated with 254 engravings on wood and six colored plates. Together with selections from the test types of Prof. E. Jaeger and Prof. H. Snellen. 8vo. Pp. 895. Philadelphia: H. C. Lea's Sons. Cincinnati: R. Clarke & Co. Price, $5.00.

The first edition of this large standard work appeared in 1873. During some of the time since then it has been out of print, yet, in the seven years since then, it has reached three editions. Considering that it is devoted to a specialty, and is a large expensive work, and there are a great many smaller and cheaper ones of no little merit, it is evident that it is held in high esteem by the profession.

An examination of the work shows it to be one of signal merit. All of the diseases of the eye are treated by the distinguished author in the masterly manner characteristic of him. Having had an immense experience, and pos-

sessed of marked capabilities as a writer, each affection is described in a comprehensive and practical manner as regards its etiology, pathology and treatment, leaving nothing wanting. The reader is really astonished by the erudition manifested. Although the work is large, yet there is no verbiage apparent. There is nothing said that does not seem necessary to be said. It has met with the honor of being translated into the French and German languages.

Dr. C. S. Bull, the American editor, has brought the third edition fully up to the present advanced knowledge. He has made extensive additions to each chapter, especially in matters relating to pathology and treatment. Although the author has died, his work will, no doubt, continue to hold its high position.

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Slight Ailments: Their Nature and Treatment. By Lionel S. Beale, M. B., F. R. S., F. R. C. P., etc. 12mo. Pp. 353. Philadelphia: Presley Blakiston. Cincinnati: R. Clarke & Co. Price, $1.50.

The fact that Dr. Beale is the author of a work is a sure guarantee that it is one of great merit. He stands at the head of the scientific investigators of the world. He is already the author of a number of standard scientific works, "Disease Germs," "Bioplasm," "On Life and Vital Action in Health and Disease," "How to Work with the Microscope," "The Use of the Microscope in Practical Medicine," etc.

The subjects treated in the present number are: "The Tongue in Health and Slight Ailments," "Appetite, Nausea, Thirst, Hunger," "Indigestion: Its Nature and Treatment," "Constipation," "Treatment of Constipation," "Diarrhea, Vertigo, Giddiness," "Biliousness, Sick Headache," "Neuralgia, Rheumatism," "Feverish and Inflammatory State," "Actual Changes in Fever and Inflammation," "Common Forms of Slight Inflammation."

The reader will find this work to be "*multum in parvo*." It is filled with practical knowledge, which every physician will find of a very valuable character. Dr. Beale, as those who are acquainted with his writings know, is not a writer of many words and few thoughts, but just the contrary. There is but little which he says that can not be put to account. At a future time we design discussing some of the points which he makes in this work.

The doctor says that among civilized nations a perfectly healthy individual seems to be the exception rather than the rule. In the course of his life he has not met with more than two or three exceptionally fortunate persons, who could assure him they had never suffered from any derangement of health. "A little too much food, or food of a bad kind, or badly cooked, or food eaten at the wrong time, or too quickly—a glass of bad wine, bad milk, or bad water, to say nothing of a dry east wind, or a cold, damp atmosphere, has occasioned such disturbance in the normal changes in the body, as to cause even the strongest and exceptionally healthy among us to feel, for a time, far from well."

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A New School Physiology. By Richard Dunglison, A. M., M. D., editor of *Dunglison's Medical Dictionary*, Secretary of American Academy of Medicine, etc. Illustrated with 117 engravings. Philadelphia: Porter & Coates.

This is the best work of physiology for schools with which we are acquainted. It gives a very complete account of the bones, joints and muscles; of digestion, absorption, respiration, circulation, animal heat, secretion, the senses, the nervous system, etc. It describes very well, at least sufficient for those not having the medical profession in view, all the functions of the body except generation. That is not alluded to for the reason, we presume, that the community are not as yet educated up to the point of having the subjects pertaining to it taught to the young folks in school, although there is nothing of more vital importance than it. The views held by Cicero still continue valid: "*Quarumque partium corporis usus sunt necessarii, eas neque partes, neque earum usus suis nominibus appellant; quodque facere turpe non est, modo occulte, id dicere obscœnum est. . . . Latrocinari, fraudare re turpe est, sed dicitur non obscœne: liberis dare operam re honestum est, nomine obscœnum.*" (Cic. De Officiis, Lib. 1–35). So long as these views are entertained the facts in regard to generation will be relegated to medical works. There is nothing, however, to prevent parents from becoming informed by proper books prepared for them and instructing their children at home without exciting prurient curiosity or destroying natural modesty.

The work of Dr. Dunglison, we think, will displace

many of the other works of physiology used in the common schools, as it is so much better adapted to give instruction in the important subjects of which it treats. It is certainly an excellent work.

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Hygienic and Sanative Measures for Chronic Catarrhal Inflammation of the Nose, Throat and Ears. Part I. By Thomas F. Rumbold, M. D. 12mo. Pp. 174. St. Louis: George O. Rumbold & Co.

This work does not seem to be written exclusively for physicians, but for the non-professional also. The author states that he has made the hygiene of catarrh a constant study for twenty years. Under the circumstances, we would suppose that he had realized some valuable observations and experience in the management of a complaint that is oftentimes exceedingly annoying, occasioning no small amount of suffering, and worries the physician very much. A somewhat superficial examination of the work warrants us in saying that it contains a great deal of useful information and many valuable suggestions. If fashionable people would read it, it would undoubtedly conduce to the benefit of many of them. And physicians will find in it much to advise their patients, and very much to assist them in their treatment. Some, who are having difficult cases, and which are giving them no little trouble, will receive considerable enlightenment.

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A Treatise on the Medical and Surgical Diseases of Women, together with their Homeopathic Treatment. Fully illustrated. By Morton Monroe Eaton, M. D., Cincinnati, O. 8vo. Pp. 782. New York and Philadephia: Boericke & Tafel. Price, $5.50.

This work is by a Cincinnati gentleman holding a high position among homeopathic physicians as a gentleman of culture and learning. It exhibits very extensive research in the literature of the department of medicine to which it is devoted, and, we have no doubt, will take position as a standard among homeopathists. In etiology, pathology, etc., it sets forth briefly and to the point the results of the most recent investigations, and is, consequently, quite abreast of the times in its information. Our author seems to be quite conversant with not only the works of American writers, but familiar with the literature of the most eminent and approved English and Continental gynecologists, and has enriched his work with

their researches. But having an extensive practice, and, consequently, a wide field of observation, he presents his own views freely throughout the work.

Gynecology, being largely surgical, there is but little room for the discussion of "*potencies*," and we, therefore, meet with but very few of them. "*Similia similibus curantur*" does not seem to apply in cases of rupture of the uterus, or vesico-vaginal fistula, and our author, therefore, is found treating them as any physician would. The illustrations of lesions and cuts of instruments and whatever may need aids to their description are similar to what are seen in all works of the kind.

In the treatment of ovarian tumors the author has quite a predilection for iodine injections. He says: "*Iodine injections have cured ninety-three per cent. of well-selected cases, and about sixty-three per cent. of cases taken at random, polycysts included.* Harm seems to have resulted in but six instances, though I have collected 311 cases operated upon by different gynecologists in this country, Germany, France and England." The strength of the iodine solution is ℥j to ʒj of water, using ʒj of potass. iodide. The quantity used at a time should not be less than eight ounces after tapping."

We are somewhat surprised to find no mention made of the great success of Dr. Thomas Keith, of Scotland, in the operation of ovariotomy for ovarian tumors. His recoveries have been *ninety-seven* per cent. since March, 1877—seventy-three of them in succession without a single death. He assigns as one of the important reasons of his success in the great care to remove every drop of blood from the abdominal cavity, and ligating the most minute vessels to prevent subsequent hemorrhage—even embracing considerable of the surrounding tissue if there should be a number of bleeding-points near together.

The work would be very creditable to the author if, in writing it, he had accepted the broad principle throughout, and not in his surgical treatment alone, that there is no school in medicine, but that experience and observation, aided by the science of chemistry and others collateral, furnish all knowledge of the treatment of disease; that it is the merest charlatanism in endeavoring to make the public believe that there are schools in medicine differing in their merits, since every physician has the right to employ whatever course of treatment his judgment approves.

# EDITORIAL.

PARTIES who advertise will consult their interests by advertising in a well-established journal—not one just commenced, nor one that has lived out its day of usefulness and is kept alive by occasionally buying up the subscription list of a defunct contemporary. It is better to pay a reasonable sum for space in a journal of large *bona fide* circulation than a very small sum in a journal of scarcely any circulation.

THE MEDICAL NEWS is the cheapest medical journal to advertise in of any medical journal in the West—not because it charges less per page, but because it has the largest circulation. Those who advertise in it usually continue their advertisements so long as they continue to advertise in any journal. In looking over the advertising form it will be observed that not a few of the advertisements have been appearing for years.

We hereby append the post-office law in regard to periodical publications. By noticing it, and keeping it in mind, hard feelings would sometimes be avoided:

UNITED STATES POSTAL LAW.—1. A postmaster is required to give notice *by letter* (returning a paper does not answer the law) when a subscriber does not take his paper out of the office, and state the reasons for its not being taken. Any neglect to do so makes the postmaster *responsible* to the publishers for payment.

2. Any person who takes a paper from the post-office, whether directed to his name or another, or whether he has subscribed or not, is responsible for the pay.

3. If a person orders his paper discontinued, he must pay all arrearages, or the publisher may continue to send it until the payment is made, and collect the whole amount, *whether it be taken from the office or not.* There can be no legal discontinuance until the payment is made.

4. If the subscriber orders his paper to be stopped at a certain time, and the publisher continues to send, the subscriber is bound to pay for it *if he takes it out of the post-office.* The law proceeds upon the fact that a man must pay for what he uses.

5. The courts have decided that refusing to take a newspaper and periodicals from the post-office, or removing and leaving them uncalled for, is *prima facie* evidence of intentional fraud.

THE CINCINNATI EXPOSITION.—The eighth annual Industrial Exposition of Cincinnati has excelled all previous ones. To describe it in detail would require many pages. Every intelligent person, whatever may be his profession, who visits it is able to find many things to interest and instruct. In the way of manufacturing all departments are interested—the machinery room is filled with every sort of machinery—among them, not the least interesting, is one for generating the electricity with which the immense building or series of buildings is illuminated; and illuminated by a light similar to that of sunlight, in which the light of a gas jet is not noticed. In another department of the machinery department a Boston company exhibits a complicated electrical apparatus to illustrate signaling danger of any kind on railroads. A misplaced switch or broken rail is automatically signaled to an approaching train, so that it may be on its guard and avoid danger. Besides this, several electrical companies make

exhibits of telephones, telegraphic apparatus, electrical bells, clocks which run by electricity and need no winding, etc. It is seen how useful electricity has become; and that it is being utilized more and more every day. It will soon illuminate our streets and dwellings, run the sewing-machines by simple apparatus, ring the bells of the house. It is already employed extensively for the latter purpose.

The druggists have occupied no little space in exhibiting their sugar-coated pills, fluid extracts, essential tinctures, extracts of malt, etc. There are a few microscopes shown, but not many; and a few surgical instruments. There is, however, a pretty full exhibit of artificial limbs. Those of a Cincinnati firm are quite extensive and interesting. So great is the perfection in these appliances becoming that it almost seems that after while it will not be regarded a very great misfortune for a man to lose a limb.

On the third floor the "Natural History Society of Cincinnati" fills an immense room with specimens from its museum. This display alone is well worth a scientific man's coming many miles to visit. To enumerate the articles of great interest to be seen here would fill many pages, so that we will only make this allusion to it.

To give anything like a fair description of the art museum, filled with many elegant paintings, ancient and modern engravings, marble busts, castings, etc., would be quite impossible. It would require a book; and yet all these things are interesting to all persons of intelligence and culture. The exhibition of cut flowers exceeded anything of the kind we saw at the great Centennial.

In another number we propose to describe somewhat in detail some of the articles on exhibition especially interesting to physicians. At this time we have only space to allude briefly to the great exhibition as a whole. Very many of our professional brethren from abroad have been visiting the Exposition, and we are indebted to many for calling upon us. We hope to see many more. We are always glad to be called upon by our friends from abroad when they happen to be visiting the Queen City of the West.

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Correspondence.—A friend informs us that the letter printed in the September issue of the Medical News, en-

titled "What a Student Thinks of the Lectures," appeared in some other medium several years ago. We know that it was never published in the NEWS before. We presume some medical student thought it expressed his views better than he could express them himself, and, consequently, *adopted it as his own*, as we have heard of some distinguished medical writers doing with other doctors' effusions, and sent it to us. It does not, however, precisely describe the present staff of the hospital as it is. For instance, "the escaped clergyman" is no longer a member, and some other changes have been made in the staff. Our pages are open to criticism, but we will be obliged to gentlemen to write out themselves what they may have to say, and *not adopt old letters* as their own, even though they may express, in the main, their sentiments.

MR. GUSTAVE E. STECHERT.—Knowing that physicians frequently desire to import a work that can not be had in this country, to subscribe for some journal or magazine, and sometimes to hunt up a work for them out of print in London, Paris, or Berlin, we mention the name at the head of this article. Mr. Stechert can be addressed at 766 Broadway, New York. He is a general agent in this country for all German, French and English publications. He takes subscriptions, at the very lowest terms, for all foreign medical journals, as well as those devoted to general literature, and will import any work required. He keeps on hand a large stock of foreign standard works on theology, philosophy, philology (ancient and modern), medicine, physiology, pathology, natural sciences, chemistry, physics, mining and metallurgy, civil and military engineering. He receives shipments weekly from England, and semi-weekly from France and Germany. He keeps on hand all the works extant of the ancient Greek and Latin authors—as the complete works of Cicero, Livy, Pliny, Aristotle, Homer, Herodotus, etc., published by Tauchnitz & Teubner, of Leipsic. These can be had in cheap volumes, bound in paper, for the purpose of rebinding.

Catalogues of books of all kinds can be had by addressing him. And, as mentioned, he gives special attention to the procuring of old, rare books, and of complete sets of periodicals. It would be well to note the address for future reference.

LACTOPEPTINE.—We have no hesitation in calling attention to this excellent adjuvant in the treatment of the gastro-intestinal troubles, that are prostrating so large a number of the infant population, and hastening many of them to their early graves, during the present hot weather, in our cities and towns. Experience with this article, during the "heated term," in the treatment of the so-called "summer complaints" of infants and children, enables us to speak of it in high terms of commendation, and as the most valuable auxiliary to the remedies we have prescribed for this class of sufferers at any time.

A sample of Lactopeptine was sent us from New York, by the company engaged in its manufacture, early in the season, but it was some time before we began its use in practice; and it is but simple justice to say, it has more than realized *all* we hoped for or expected from its use thus far.—*Ed. of Exchange.*

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MALTINE.—We have recently noticed, in our exchanges, many commendations of Maltine. It has come to be used so extensively that the manufacturers inform us they can scarcely supply the demand. A preparation so popular must certainly have very great merits. A recent number of *Braithwaite's Quarterly Epitome* contained a long article on Maltine by a St. Louis physician, recommending it in high terms in many affections, citing many cases in evidence. We hope that none of our subscribers will fail to give it a trial.

# PHOSPHOROLE.

## PHOSPHORUS and COD-LIVER OIL.

have now an established position throughout the civilized world as important therapeutical agents. A *perfect combination* of the two has long been a desideratum, since they are both of value in the same disorders, while the cases in which one is demanded and the other contra-indicated are exceedingly rare.

The combination in PHOSPHOROLE has the twofold advantage of furnishing *the best possible form* for the administration of *phosphorus*, and *a more effective form* for the administration of *cod-liver oil*.

With regard to the former, it has been decided by the highest chemical and medical authorities that *phosphorus* should be administered *in a free state*, and in a vehicle which ensures its *perfect diffusion*, its *absolute unalterability*, and, as far as possible, its *prompt assimilation* without the gastric irritation to which the ordinary methods of exhibiting the agent give rise. It is well known that pills, emulsions, solutions in ether, chloroform, vegetable oils and resin, etc., have all failed to fulfill one or more of these conditions. Even an ordinary solution of phosphorus in cod-liver oil would not answer the purpose in all respects. We claim, however, that PHOSPHOROLE completely satisfies all the conditions. From the method of preparing it, in an atmosphere of dry carbonic acid, the phosphorus is *entirely dissolved without oxidation*, and by our mode of manipulation *a positive uniformity of strength* is ensured. It is then promptly bottled and sealed, and its *stability and permanence* thus secured. The exact amount of phosphorus in each dose is known, its efficiency is ensured, and the irritant effects upon the stomach are reduced to a minimum by the blandness of the oil. As a means then of administering *phosphorus* in the many cases in which it is indicated as a *nervous tonic and stimulant*, it is claimed that PHOSPHOROLE is the best attainable in the present state of our knowledge.

The value of *cod-liver oil* in phthisis is so familiar to the physician that it is needless to dwell upon it. But the value of *phosphorus* is also universally recognized in this disease, especially when complicated with nervous derangements. The *combination* of the two therefore furnishes a more effective form for the administration of cod-liver oil in the great majority of cases in which that remedy is indicated, and one which will at once commend itself to the profession.

A dose of two teaspoonfuls of PHOSPHOROLE contains $\frac{1}{100}$ of a grain of phosphorus. This dose, when given after a meal, is effective, and not very liable to interfere with digestion. *Phosphorus is cumulative in its action, and should be administered with watchful care.* About $\frac{1}{12}$ grain is considered the largest safe dose, and we rarely need go higher than $\frac{1}{20}$ or $\frac{1}{30}$ of a grain. At the very first appearance of the smallest gastric derangement, the exhibition of phosphorus should be stopped.

PHOSPHOROLE is handsomely put up in pint bottles only, and may be obtained at all first-class druggists throughout the United States.

*Descriptive Circulars furnished upon application.*

*Correspondence with Physicians solicited.*

## BILLINGS, CLAPP & CO.,

MANUFACTURING CHEMISTS, BOSTON.

☞ For Reports of Actual Cases see Opposite Page. ☜

# DEXTRO QUININE

"As an antiperiodic, Dextro-Quinine deserves a high place; and for the reduction of high temperature in zymotic diseases, I feel that we may regard Dextro-Quinine as equally efficient with the other alkaloids as Cinchona bark."

WM. PEPPER, A.M., M.D.,
*Prof. of Clinical Medicine in the University of Pennsylvania.*

"We have given Dextro-Quinine an extensive trial. We are quite inclined to believe it is the best substitute for Sulphate of Quinine yet offered the profession. It is given in the same doses as Sulphate of Quinine, and seems equally efficacious."

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"I have used Dextro-Quinine in my practice, especially in the treatment of Malarial Neuralgia, and am satisfied of its equal value if not superiority to the salts of quinine."

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"I have used the Dextro-Quinine in a dozen or more cases, as a substitute for the Sulphate, and it has seemed to me to meet the indications equally well, and it strikes me as being eminently worthy of extended trial."

R. O. COWLING, A.M., M.D.,
*Ed. Louisville Medical News, and Prof. Operative Surgery in University of Louisville.*

"Dextro-Quinine does not cause nausea like Cinchonidia, and is as good an antiperiodic as either that or Quinine. I give it in one-half larger doses. As a febrifuge I have given it with good effect."

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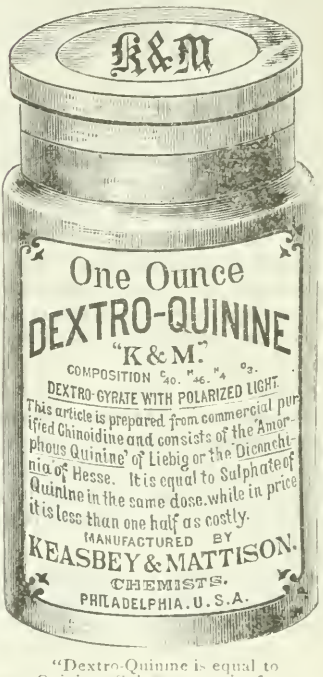
*Professor of Pathology and Practice of Medicine, University of the City of New York.*

"Shall use no other antiperiodic as long as I can get Dextro-Quinine." G. W. SMITH, M.D.




"Dextro-Quinine is equal to Quinine Sulphate, grain for grain" T. W. JONES, M.D.

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this view."

H. L. GIBBONS, M.D.,
*Prof. of the Principles and Practice Medicine and of Clinical Medici Medical Dept. of University C lege, San Francisco, Cal.*

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*Prof Obstetrics, etc., University Louisville.*

"I have used Dextro-Quinine find it in every respect equal to S phate of Quinine."

F. LE ROY SATTERLEE, M PH.D., *Prof. of Chem., Mat. M and the in the N College Dentist. Prof. Chem. Hygiene the Am. College,*

# QUININE

☞ For original articles on the clinical use of Dextro-Quinine during the year 1879, in Remittent, Intermittent Typhoid Fevers, Pertussis, Cholera Infantum, Pneumonia, Periodic Neuralgia, etc., see communications enti "On the use of Dextro-Quinine."—*Medical and Sugical Reporter* January 25th "Dextro-Quinine."—*Medical Surgical Reporter*, April 5th. "A Case of Pneumonia, etc., treated by Dextro-Quinine," etc.—*Medical and Surg Reporter*, December 20th "Dextro-Quinine as an Antiperiodic."—*Ohio Medical Recorder*, March. "On De Quinine."—*New Remedies*, March. "Dextro-Quinine as an Antiperiodic."—*N. Y. Eclectic Medical Journal*, J "Dextro-Quinine."—*Cincinnati Lancet and Clinic*, August. "On the use of Dextro-Quinine."—*Louisville ical News*, April 5th and May 17th "Dextro-Quinine as an Antiperiodic."—*Medical Brief*, July. "Malarial ver of the South."—*Southern Medical Record*, August "Dextro-Quinine in Pertussis."—*Southern Medical Re* November. "Dextro-Quinine"—*Medical Summary*, (two articles), October "Notes on Hospital and Private P tice"—*Pacific Medical Journal*, October. "Dextro-Quinine."—*Western Lancet* (San Francisco), December

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# FACTS FROM OHIO.

## HE USE OF DEXTRO-QUININE IN INTERMITTENT FEVER.

| *Name, and sex of patient.* | *Age, etc.* | *No. paroxysms before taking.* | *Paroxysms after taking.* | *Dose and mode of exhibition.* | *Total amount exhibited.* | *Remarks, pathological and physiological phenomenon, etc.* | *Reported by* |
|---|---|---|---|---|---|---|---|
| Miss D. | 28 | Unknown, a great many. | 0 | 3 grs. every 3 hours. | 30 grs. | Had been under treatment about four months with Cinchonidia Sulphate, which would control the paroxysms at the moment but they would invariably return. Used *Dextro-Quinine* in the same doses and there has been no return of the chills. Another case, Mrs. B., æt. 77, was unable to take Cinchonidia on account of the severe tinnitis aurium. etc. I prescribed *Dextro-Quinine* without any head symptoms with satisfactory result. | G. S. Krieger, M.D., Lebanon, O. |
| eo. C., male. "Has used uinine un- l the name 'it gave him ie horrors." | 28 Single. | Unknown, has been suffering with almost daily paroxysms for nearly 2 years. | 0 | 9 grs., in three doses of 3 grs. each, 3, 2, and 1 hour before the expected attacks. | 9 grs. | Missed chill on first day, put him on pills containing *Dextro-Quinine*, Ferri. Acid Arsenious and Ext. Nux Vom., and has had no return of chill to date. This man in connection with the chills was down with the yellow fever in Memphis during the late scourge. He returned here and has been under my treatment ever since his return. I have used Quinine and Cinchonidia with very poor success in his case. | B. S. Chambers, M.D., Cincinnati, O. |
| iss Smith. | 27 | 3 | 0 | 4 grs. every 2 hours combined with ½gr. doses of Capsicum. | 16 grs. | The best word I can say for *Dextro-Quinine* is, that I have not prescribed any other anti-periodic since receiving sample of *Dextro-Quinine*. I find the action more certain when combined with Capsicum, as I also did with Sulphate of Quinine. | J. W. Lisle, M. D., Millfield, Ohio. |
| iss Artz. | 25 | For 3 years more or less frequently. | 1 | 4 grs. every 3 hrs. until 16 grs. were given, then same repeated. | 32 grs. | | |
| Mrs. C. Taken Quinine without y effect. | 25 | 15 | 0 | 2 gr. pills, 2 every 2 hours. | 34 grs. | Had taken quinine without any effect. Had had no return since using the *Dextro-Quinine*. Now over four months. | J. Frank Vigor, M.D., Gifead Station, Ohio. |
| ena Rush. ad taken 15 s. of Quinia aily without effect. | 26, mother 4 children | 8 | 0 | 2 gr. pill every hour till 5 were taken. | 20 grs | Paroxysm every day about 4 p.m. Cold and hot stages short, followed by very profuse sweating. Had taken Sulphate of Quinia 15 grs. per day, without any effect whatever. | A. J. Learned, M D., Pataskala, Ohio. |
| Mr. C.C. | 40 | 20 or more | 0 | 5 grs. every 3 hrs. until 30 gr. taken, then 5 gr. 3 times a day. | 120 grs. | I find that it is equally as good as Quinine Sulphate, with none of the unpleasant head symptoms derived from the latter. | J. F. Heady, A.M., M.D., Springdale, Ohio. |
| Mr. H.O. | 42 | Two, but often had them previously | 0 | 5 grs. every hr., till 30 grs. were given. | 30 grs. | Perfectly satisfactory. Have obtained only good results in the cases in which I have used the *Dextro-Quinine*. | |
| Jas. L. | 26 | About 30. | 0 | 15 grs., in 3 powders, 3, 2, and 1 hr. before the chill. | 15 grs. | In all these cases I began treatment with Cathartic, then after chill was checked put them on tonics, and on 7th, 14th and 21st days, I repeated the dose in lessened quantities. I very seldom have any trouble with return of chill. | |
| Annie C. | 17 | 3 | 0 | 12 grs., in 4 pills, 2 at night and 2 in morning. | 12 grs. | I sent you report of the 1st case I had, Geo. Caldwell, which was the worst case I have ever seen. He has never had any return. I have used it in a large number of cases with about the same average result as when I used the Sulph. of Quinine. I cannot say that I see much difference between *Dextro-Quinine* and Sulphate of Quinine. I send 3 reports of cases from my own O. D. P. list. Of course, cases of this kind are usually of the very worst type. I send from my list, cases Nos. 18, 33, and 48. | B. S. Chambers, M.D., District Physician, Newport, Ky. |
| s. J., col'd. | 38 | About 30. | 0 | 20 grs., in 4 pills, 4, 3, 2 and 1 hour before chill time. | 20 grs. | | |

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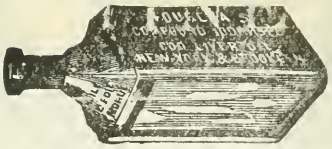
COMPOUND  IODINISED

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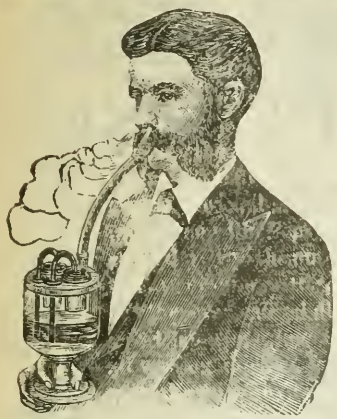

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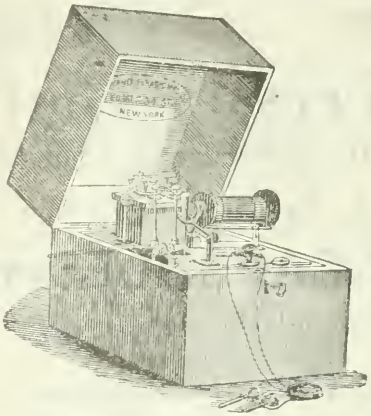

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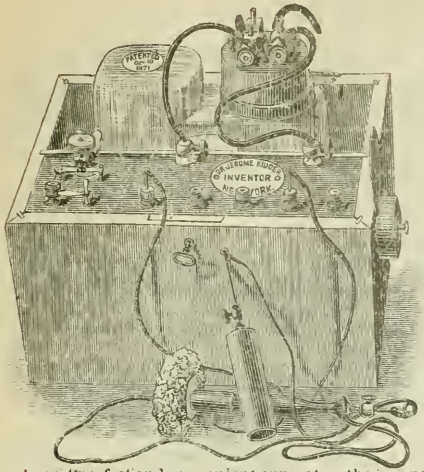


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The high character and wide reputation SCOTT'S EMULSION has attained through the agency of the Medical Profession, and the hearty support they have given it since its first introduction, is a sufficient guarantee of its superior virtues. The claims we have made as to its permanency—perfection and palatableness—we believe have been fully sustained, and we can positively assure the profession that its high standard of excellence will be fully maintained. We believe that the profession will bear us out in the statement that no combination has produced as good results in the wasting disorders, incident to childhood; in the latter, as well as the incipient stages of Phthisis, and in Scrofula, Anæmia and General Debility. We would respectfully ask the profession for a continuance of their patronage, and those who have not prescribed to give it a trial. Samples will be furnished free on application.

FORMULA.—50 per cent. of pure Cod Liver Oil, 6 grs. of the Hypophosphite of Lime, and 3 grs of the Hypophosphite of Soda to a fluid ounce.

**SCOTT & BOWNE,**
**Manufacturing Chemists 132 Hudson Street, N. Y.**

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MESSRS. SCOTT & BOWNE: New York, *September* 4 1876

GENTS—I have prescribed Scott's Emulsion of Cod Liver Oil with Hypophosphites in both private and hospital practice, and consider it a valuable preparation. It remains as a permanent emulsion even in extremely hot weather, and is more palatable than any other preparation of oil that I have used Yours, very respectfully,

ROBERT WATTS, M. D., President Medical Board Charity Hospital.

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New York, *September* 2, 1876, 66 West Thirty-sixth Street.

MESSRS. SCOTT & BOWNE:

GENTS—I have frequently prescribed Scott's Emulsion of Cod Liver Oil with Hypophosphites during the last year, and regard it as a valuable preparation in scrofulous and consumptive cases - palatable and efficacious. C. C. LOCKWOOD, M. D.

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MESSRS. SCOTT & BOWNE:

GENTLEMEN—Within the last two months I have fairly tried Scott's Emulsion of Cod Liver Oil with Hypophosphites, and I candidly declare that it is the finest preparation of the kind that has ever been brought to my notice In affections of the lungs, and other wasting diseases, we consider it our most reliable agent In a perfectly elegant and agreeable form Very truly,

J. SIMONAUD, M. D, New Orleans, La.

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MESSRS SCOTT & BOWNE: Chicago, *November* 7, 1878.

I have prescribed Scott's Emulsion of Cod Liver Oil, etc., to a considerable number of patients, and have been much pleased with its effects I have very rarely met with a case in which it was indicated where it was not taken without repugnance. It is comparatively agreeable to the taste; is well tolerated by the stomach, and has so far furnished all the beneficial results expected from the combination.

Respectfully yours, J. ADAMS ALLEN, M. D., LL. D.,

President and Professor of the Principles and Practice of Medicine in Rush Medical College, Chicago, Ill.

GENTLEMEN—I fully concur in the above recommendation: having used the remedy in several cases. JOS. P. ROSS, A. M., M. D.,

Professor of Clinical Medicine and Diseases of the Chest, Rush Medical College, Chicago, Ill.

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MESSRS. SCOTT & BOWNE: Louisville, *December* 7, 1878.

I have been using Scott's Emulsion of Cod Liver Oil with Hypophosphites in my practice for several years, with more satisfaction growing out of success than any other preparation I have ever used. I commend it to my classes in the University of Louisville, as much the best article of Cod Liver Oil. Respectfully yours,

T. S. BELL.

"In Malted Barley we have an unlimited supply of diastatic power."—W. Roberts, M. D., F. R. S., in *London Practitioner.*

# Trommer
# EXTRACT OF MALT.

## OPINIONS OF THE MEDICAL PRESS.

"Using Trommer Extract with excellent results; very serviceable in certain forms of dyspepsia; agrees with the most fastidious stomach."—*Canada Lancet, Toronto.*

"Converts starch into glucose and dextrine rapidly and in large quantity. Seems to be steadily increasing in favor for diseases involving impaired nutrition."—*London Lancet.*

"There are many conditions in infancy, old age and debility, where a physician, once acquainted with the value of this Extract, would be at a loss to replace it."—*Medical and Surgical Reporter, Phila.*

"During convalescence from fevers, in cases of phthisis, in certain forms of dyspepsia, and generally in all cases of malnutrition, we have found it of very great value."—*Ohio Medical Recorder.*

"There are few remedies which, to a greater extent, offer *a priori* grounds for their use. The clinical evidence, too, which has sanctioned the physiological claims of Malt Extract, is abundant."—*Louisville Medical News*

"Adapted to a wide range of cases requiring supplementary food; acceptable to the stomach; aids digestion; an excellent vehicle for other medicines; and will keep in the hottest climate."—*Medical Journal, Wilmington*

"The Trommer Company has hitherto taken the lead in the introduction of the Extract of Malt. The uniformity and reliable character of this Extract has induced an enormous demand and sale."—*Obstetric Gazette, Cincinnati.*

"Employed with great advantage in the wasting diseases of children, both as a nutrient and to improve digestion"—*Cincinnati Medical News.*

"One of the best of the various preparations of a similar character. Prof. Redwood finds Trommer's Extract has all the power of acting on amylaceous bodies."—*London Chemist and Druggist.*

"Too well known to need commendation. Malt fills a place in the treatment of disease of the utmost utility."—*Courier of Medicine, St. Louis.*

"Has grown so rapidly in favor with the profession that there are few practitioners in Canada who do not regularly prescribe it."—*Canada Medical Record.*

"The Trommer Company was the first to bring prominently before the American profession the virtues of Malt Extract. As a Malt Extract we have no hesitancy in saying that there is no brand in the market its equal in every respect."—*Medical Advance, Detroit.*

"Eminent practitioners, including most of the leading teachers, speak of it in the highest terms. Independently of the obvious merit of the preparation there is in its favor a mass of clinical evidence."—*London Medical Record.*

"There is no scarcity of good alimentary articles, but there is an objection to most of them that they will not keep. This makes our estimate of Trommer's Extract of Malt higher each season. It will keep in the hottest climate."—*N. C. Medical Journal, Wilmington.*

The Trommer Extract Company is engaged exclusively in the manufacture of Malt Extract, "plain," and in such combinations as have been suggested and approved by some of the most eminent members of the profession in Europe and America. Notwithstanding the large demand, they are enabled, by unremitting personal attention to all the details of the manufacture, to maintain the excellent quality which has established the reputation of their preparations on both sides of the Atlantic.

# MALTINE.

[*From the "PHYSICIAN, and Bulletin of the Medico-Legal Society," February*, 1880.]

ST. LOUIS, MO., *February* 26, 1880.

Maltine and its various compounds have become quite indispensable to me in my treatment of nervous diseases. I have seen some very remarkable and most satisfactory results from its use.

As a nutritive tonic, I use it exclusively in the place of Cod Liver Oil, and alone, or in emulsion with the latter, I deem it a most important and useful therapeutic agent in pulmonary affections. In neuralgia, epilepsy, and many varieties of paralysis, chorêa, and numerous other neurotic affections, I have found it a most important adjuvant when combined with the standard remedies administered in such cases.

In the long-continued administration of the bromides during the treatment of epilepsy and epileptoform diseases, Maltine seems to obviate their depressing effects, thus to a great extent preventing the superinduction of the Bromide Cachexia, which is so disastrous in its results, and necessitates the withdrawal of a remedy otherwise so obviously indicated.

In many perversions of nutrition, atonic and nervous varieties of dyspepsia, Maltine has a most happy effect, correcting functional gastric disturbances, improving digestion, promoting assimilation, and rapidly increasing bodily weight.

I have seen Maltine produce immense benefit when administered *alone*, without the assistance of other remedies. This I consider the best test of its efficacy. In a recent case of impairment—of a threatening character—of the general health of a member of my own family circle, I administered it alone, and its influence for good was as astonishingly rapid as it was permanent in its results.

I consider Maltine one of the best recent additions to the armamentarium of the physician, and after a long and faithful experience of its effects, my confidence in its use daily increases.

Respectfully, J. K. BAUDUY, M. D.,

*Professor of Nervous and Mental Diseases, Missouri Medical College*

☞Send for our 20-page pamphlet. Address

**REED & CARNRICK, New York.**

# Maltine with Peptones.

Maltine with Peptones is a combination of the nutritive properties of malted barley, wheat, and oats with beef, perfectly digested and ready for rapid assimilation. The starch in the cereals is converted into glucose by the action of the diastase, the nutritive properties of the beef, and the albuminoids of the malted grains are converted in Peptones by the action of the digestive agents of the gastric juice and pancreas, in which form they are assimilated.

Maltine with Peptones contains no inert matter. The digestive agents are applied only to the nutritious principles, these elements being perfectly separated from the refuse matter.

Whenever natural digestion is partly or wholly in abeyance, in mal-nutrition, gastric and intestinal lesions, alimentation in fevers, pulmonary affections, and all wasting diseases, we have the utmost confidence that this preparation will meet the fullest expectations of the profession. It is by far the most important production of our house during the past twenty years.

—o—

# Chemical Report on Maltine.

By WALTER S. HAINES, M. D.,

*Professor of Chemistry and Toxicology, Rush Medical College, Chicago.*

Chemical Laboratory of Rush Medical College,
Chicago, *November* 18, 1879.

In order to test the comparative merits of Maltine and the various extracts of malt in the market, I purchased from different druggists samples of Maltine and of the most frequently prescribed extracts of malt, and have subjected them to chemical analysis.

As the result of these examinations, I find that Maltine contains from half as much again to three times the quantity of phosphates (nerve and brain food and bone producers), and from three to fourteen times as much diastase and other albuminoids (digestive agents and muscle producers), as any of the extracts of malt examined. Since the value of such preparations is indicated very exactly by the proportion of these—their two most important constituents, I have no hesitation in pronouncing Maltine greatly superior to any extract of malt which I examined.

The large amounts of phosphates and albuminoids found in Maltine demonstrate, moreover, the superior skill and care employed in its preparation, and thoroughly warrants the confidence placed in it by the medical profession.

Very respectfully,

WALTER S. HAINES.

# PROFESSIONAL OPINIONS OF MALTINE.

*During the past year we have received nearly one thousand letters from the Medical Profession in this country and Great Britain, referring to the therapeutic value of Maltine: their character is indicated by the several extracts which we present below.*

ST. LOUIS, MO., *June* 1, 1879.

As regards the use of Maltine I can only say I am charmed with it, and would not know how to replace it in my practice. I suppose no one in the West uses it more extensively than I do. The results I have obtained have been more satisfactory than I can possibly express. I have never met with a preparation to which I am more indebted. J. K BAUDUY, M. D.,

*Professor Nervous and Mental Diseases, Missouri Medical College.*

CINCINNATI, O., *December* 29, 1879.

I have used Maltine largely in the clinic of the college and in private practice, and find it exceedingly efficient as a medicine and much superior to anything of the kind with which I am acquainted. GEO. E. WALTON, M. D.,

*Professor Principles and Practice of Medicine, Cincinnati College Medicine and Surgery.*

RICHMOND, VA, *January* 16, 1880.

I have found your Maltine preparations so valuable that I use some of them almost daily in my practice. HUNTER McGUIRE. M. D.,

*Professor of Surgery Medical College of Virginia.*

CHICAGO, *January* 21, 1880.

I am very much pleased with Maltine, and since its introduction here I have entirely given up the use of extract of malt. E. F. INGALLS, A. M., M. D.

KENSINGTON DISPENSARY, LONDON, *November* 24, 1879.

We are using your Maltine among our patients, and find *great benefit* from it, especially in cases of phthisis. DR CHIPPENDALE,

*Resident Medical Officer.*

THE BEECHES, NORTHWOLD, ENG, *July* 28, 1879.

I find that my patients can readily digest your Maltine with Cod Liver Oil without causing any unpleasant after-feeling I have full confidence in the virtue it possesses to sustain the system during prolonged diseases of a tubercular or atrophic nature FREDERICK JOY, L. R. C. P., M. R. C. S.

123 LANSDOWNE ROAD, NOTTING HILL, W. LONDON, *October* 16 1879.

I have much pleasure in bearing favorable testimony to the merits of your Maltine preparations. I have used Maltine with Cod Liver Oil with the happiest results in a case of tuberculosis attended with tubercular peritonitis, in which the temperature of the patient rose to 105 1-5 degrees, and persistently remained above 100 degrees for upwards of two months. The only medicine taken was Maltine with Cod Liver Oil, and an occasional dose of carbonate of bismuth to check diarrhea. She gradually improved, and made a perfect recovery. I find Maltine with Cod Liver Oil is more readily taken and more easily assimilated than Cod Liver Oil in any other form. EDMUND NASH, M. D.

## LIST OF MALTINE PREPARATIONS.

MALTINE—Plain.
MALTINE with Alteratives.
MALTINE with Beef and Iron.
MALTINE with Cod Liver Oil and Pancreatine.
MALTINE with Cod Liver Oil and Phosphates.
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MALTINE with Pepsin and Pancreatine
MALTINE with Phosphates.
MALTINE with Phos. Iron, Quinia and Strychnia.
MALTINE Ferrated.
MALTINE WINE.
MALTINE WINE with Pepsin and Pancreatine
MALTO-YERBINE.

MALTINE is now in the hands of the wholesale trade throughout the United States.

*We guarantee that* MALTINE *will keep perfectly in any climate, or any season of the year.* Faithfully yours,

REED & CARNRICK, NEW YORK.

# CHEMICAL REPORTS ON MALTINE.

## By R. Ogden Doremus, M. D., LL.D.

Professor of Chemistry and Toxicology, Bellevue Hospital Medical College;
Professor of Chemistry and Physics, College of the City of New York.

New York, April 17th, 1879.

I have visited the works at Cresskill, on the Hudson, whe e Maltine is prepared, and spent portions of two days in witnessing the chemical processes for making the same. I was particularly impressed with the thorough cleanliness observed, as well as with the completeness of the apparatus employed for accomplishing the desired result—from the first treatment of the grains, to the concentration of the liquid product by evaporation in vacuo. The operation is effective in extracting the whole of the nutritive constituents of the grains of malted Barley, Wheat and Oats, with but a slight residue, and is the most complete method yet devised, with which I am acquainted. for accomplishing this object.

Maltine is superior in therapeutic and nutritive value to any Extract of Malt made from Barley alone, or to any other preparation of any one variety of grain. From a chemical and medical standpoint, I can not commend too highly to my professional brethren this unique and compact variety of vegetable diet and remedial agent, nutritive to every tissue of the body, from bone to brain.

Respectfully, R. OGDEN DOREMUS.

## By Prof. John Attfield, F.C.S.

Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain;
Author of a Manual of General Medical and Pharmaceutical Chemistry.

London, 17 Bloomsbury Square, W. C.
October 28th, 1878.

To Messrs. Reed & Carnrick:

Gentlemen:—I have analyzed the extract of malted Wheat, malted Oats and malted Barley, which you term Maltine. I have also prepared. myself, some extract from these three malted cereals. and have similarly analyzed it, and may state at once that it corresponds in every respect with the Maltine made by myself As regards the various Malt Extracts in the market, I may remark that your Maltine belongs to the non-alcoholic class, and is far richer, not only in the directly nutritious materials, but in the farina digesting Diastase. In comparison your Maltine is about ten times as valuable, as a flesh former; from five to ten times as valuable, as a heat producer; and at least five times as valuable, as a starch digesting agent. It contains, unimpaired and in a highly concentrated form, the whole of the valuable materials which it is possible to extract from either malted Wheat, malted Oats or malted Barley.

Yours faithfully, JOHN ATTFIELD.

ny of these Works sent by mail on receipt of price, by addressing MEDICAL NEWS, 121 West Seventh Street, Cincinnati, O.

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THE scarcity and high prices of Cinchona barks and Sulphate of Quinia, and the prospect of only a slight reduction in these prices, makes the present a favorable opportunity of calling the attention of the profession to the *combination of all the bark alkaloids.*

Much attention has been given to this subject in Europe and India.

The growing appreciation by the medical profession of the United States of

## CINCHO-QUININE

is due to the fact that it retains the important alkaloids IN COMBINATION. — a combination which in practice is *preferable to perfect isolation or separation* of these alkaloids.

In addition to its superior efficacy as a tonic and anti-periodic, it has the following advantages, which greatly increase its value to physicians : —

1st, *It exerts the full therapeutic influence of* Sulphate of Quinine, *in the same doses*, without oppressing the stomach, creating nausea, or producing cerebral distress, as the Sulphate of Quinine frequently does; and it produces much less constitutional disturbance.

2d, It has the great advantage of being *nearly tasteless.* The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.

3d, It is *less costly :* the price will fluctuate with the rise and fall of barks, but will always be much less than the Sulphate of Quinine.

4th, It meets indications not met by that Salt.

*The following well-known Analytical Chemists say : —*

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"I have tested CINCHO-QUININE, and have found it to contain *quinine, quinidine, cinchonine, cinchonidine.* F. A. GENTH,
*Professor of Chemistry and Mineralogy.*"

"LABORATORY OF THE UNIVERSITY OF CHICAGO, Feb. 1, 1875.
"I hereby certify that I have made a chemical examination of the contents of a bottle of CINCHO-QUININE; and by direction I made a qualitative examination for *quinine, quinidine,* and *cinchonine,* and hereby certify that I found these alkaloids in CINCHO-QUININE.
C. GILBERT WHEELER,
*Professor of Chemistry.*"

"I have made a careful analysis of the contents of a bottle of your CINCHO-QUININE, and find it to contain *quinine, quinidine, cinchonine,* and *cinchonidine.*
S. P. SHARPLES, *State Assayer of Mass.*"

## TESTIMONIALS.

"WELLFLEET, MASS., Nov. 17, 1876.
"I have used CINCHO-QUININE, and can say without any hesitation it has proved superior to the sulphate of quinine. J. G. JOHNSON, M.D."

"MARTINSBURG, MO., Aug. 15, 1876.
"I use the CINCHO-QUININE altogether among children, preferring it to the sulphate.
DR. E. R. DOUGLASS."

"LIVERPOOL, PENN., June 1, 1876.
"I have used CINCHO-QUININE, obtaining better results than from the sulphate in those cases in which quinine is indicated.
DR. I. C. BARLOTT."

"RENFROW'S STATION, TENN., July 4, 1876.
"I am well pleased with the CINCHO-QUININE, and think it is a better preparation than the sulphate. W. H. HALBERT."

"ST. LOUIS, MO., April, 1875
"I regard it as one of the most valuable additions ever made to our materia medica.
GEORGE C. PITZER, M.D."

"RICHMOND, VA., March 28, 1877.
"I believe that the *combination* of the several cinchona alkaloids is more generally useful in practice than the sulphate of quinine uncombined.
"Yours truly, LANDON B. EDWARDS, M.D.
*Member Va. State Board of Health, and Sec'y and Treas. Medical Society of Va.*"

"CENTREVILLE, MICH.
"I have used several ounces of the CINCHO-QUININE, and have not found it to fail in a single instance. I have used no sulphate of quinine in my practice since I commenced the use of the CINCHO-QUININE, as I prefer it. F. C. BATEMAN, M.D."

"NORTH-EASTERN FREE MEDICAL DISPENSARY, 908 East Cumberland St., Philadelphia, Penn., Feb. 29, 1876.
"In typhoid and typhus fevers I always prescribe the CINCHO-QUININE in conjunction with other appropriate medicines, the result being as favorable as with former cases where the sulphate had been used.
"F. A. GAMAGE, M.D."

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